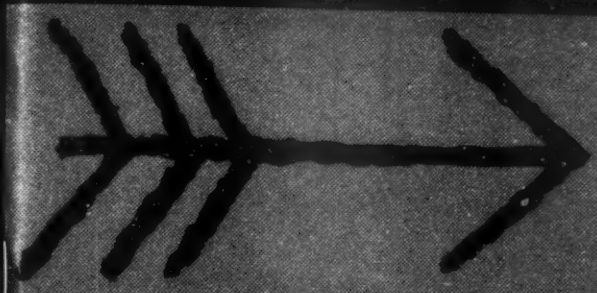
TRENDS IN EDUCATION



26

Human Issues
Truancy
Small Comprehensives
Reading
Metrication
Special Education

APRIL 1972

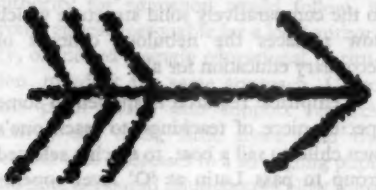
Department of Education and Science

HMSO 18½p NET

Annual Subscription
84p including postage

The opinions expressed in Trends in Education *are the writers' own. They may not necessarily be in accordance with the views of the Department of Education and Science.*

CONTENTS



NUMBER TWENTY-SIX APRIL 1972

Talking Points 2

Human Issues in the Classroom

Development of a Sixth Form 4
by Geraldine Lack

Neutrality as a Form of Commitment 9
by John Hipkin

Absent from School 14
by Maurice J. Tyerman

The Small Comprehensive School Debate 21
by S. E. Gunn

Effective Reading at Every Age 28
by Vera Southgate

Metrication in the School Curriculum 35
by Edith Biggs

The Future of Special Education 41
by H. W. Barrett

In Response To . . . 48

Trend-setter 50

Books 54

The Editorial Advisory Board of Trends in Education *consist of senior officers of the Department and senior members of the Inspectorate. The Chief Information Officer is general editor, supported by an executive editor (Martyn Clémans) and an associate editor (David Hopkinson, HMI). Correspondence should be addressed to the executive editor.*

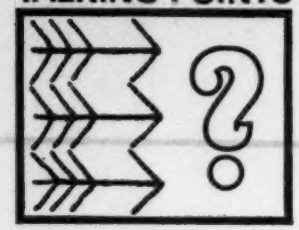
TRENDS IN EDUCATION
is produced quarterly by the Department of Education and Science, Curzon Street, London, W.1.

Published by Her Majesty's Stationery Office

Printed in England by C. Tinling & Co. Ltd., London and Prescot.

© *Crown copyright 1972*

TALKING POINTS



By Question Master

Educational Research and Development

The public associates the phrase 'research and development' with science and technology. This is natural because much greater sums are expended in activities that belong in these fields than on projects within the social sciences or the humanities. The need for, and the consequences of medical research are self-evident; research and development expenditure for educational ends is by no means as widely acceptable. Most of those employed in education seem to regard sums of money devoted to research and development as a justifiable call on national resources, but inside the profession there are some who don't and outside it there may be many. One might speculate on the reasons for this, and almost certainly reach the conclusion that an analogy between the research process as applied to education and as applied to science or technology is misleading and the cause of much misunderstanding.

Development of course takes place within the structure of the educational system and within the scope and practice of teaching. On the surface few of the significant developments seem to have been, in any obvious way, related to research. A massive development involving substantial new investment occurred when the unexpected decision to raise the school leaving age was taken in 1947 but behind it lay the forces of history rather than the forces of science. It could perhaps be argued that subsequent developments in secondary education were derived from the scientific evaluation of what happened in schools after the age was raised. Eventually there were more teachers, more equipment, more pupils entered for external examinations. Research studies clearly contributed to the comparatively solid structure which now replaces the nebulous concept of secondary education for all.

If empirical research is applied to some specific piece of teaching—to teach one's own child to sail a boat, to teach a selected group to pass Latin at 'O' level—operational control by objectives is a perfectly reasonable approach. A judicious teacher will proceed from the achievement of one objective to the next until the entire operation is satisfactorily completed. Close application to a taxonomy of educational objectives would always be advisable if the job were teaching someone to become a high-class slave for top people. But if the desired end-product is a free man or a liberated woman—that would be more difficult. We may disagree on whether Concorde is worth having but we all know what it's for. On the other hand, as parents, we almost all feel that our children are worth having, but there is endless disagreement amongst us as to what they are for. We may unite in wanting them to be happy and good, but such a customer prescription is not of much help to the designers of educational programmes.

Education is not a product like penicillin or the jet engine. There is no process within education comparable to that by which a research team makes a discovery, and this is followed by investment on development, which leads eventually to large-scale manufacture and an ultimate 'pay-off'. Why then does anyone suppose that benefits will accrue from research and development in the educational field?

The answer may lie in the general awareness that education serves a social purpose and consumes public money. It is as much necessary to try to collect information about its efficiency and its cost as with any other charge on the resources of the community. Research may thus contribute to the necessary control mechanisms

and indeed also to the marshalling of arguments on which policy decisions will be based. It has done so in the past and it would seem certain that any large-scale enquiry into a contemporary educational issue would examine relevant research findings and probably initiate new research. If this is the procedure which a central authority for education would follow, it would appear reasonable for a local authority, or indeed a single educational institution, to adopt the same approach. Up to this point those who support research activity are doing little more than the teacher who addresses to a struggling pupil the time honoured injunction—'Now think carefully about what you are doing'.

Research in fact implies not merely enquiry and the collection of information but controlled experiment. Both implications often involve elaborate and sophisticated techniques if any reliance is to be placed on the findings. The word development associated with research has the further implication of constructing, testing and evaluating a prototype. In this way project teams have been set up by the Schools Council and others and indeed by groups of teachers to develop new methods, new materials, new processes of assessment. Not all research takes place within an institutional framework designed to promote scientific studies of the educational scene, but much of it does and it is therefore on the adequacy of this framework that much depends. Before that can be tested the ends to be served by educational research have to be established. Obviously these are various—can they be expressed in terms of the institutional arrangements at present in operation?

It seems clear that there is one set of enquiries and experiments in which most educational institutions are involved and with which it is essential that practising teachers should be concerned. These are the activities designed to influence the work of the teacher, his power of communication, his choice of method and material. Work of this kind is widespread and the contribution it can make has been recognised in the establishment of the Schools Council. In further and higher education the absence of similar institutional foundation for work of this kind is already being felt. There seems to have been no doubt, however, in the minds of those responsible for the Open University that this was a type of work for which provision had to be made.

Another set of considerations affecting research arises from the exigencies of educational planning, and the need to take policy decisions. In most activities of government it is regarded as important that enquiries and experiments should take place with these ends in mind. Research may sometimes influence policy decisions with dramatic directness. More often it serves to clarify the issues, to identify more plainly the alternative choices and, in so far as prediction is possible, what their results might be. Our own, and most other governments, promote an institutional framework for educational research of this type. Up to now they have considered that it is on the whole best entrusted to scholars working in an atmosphere of scholarship. Whatever other agencies may be established the universities are bound here to play a prominent part, but there is a third kind of research which is hardly likely in the modern age to be carried out anywhere else. This is the work of individuals or groups and teams in the field or in libraries and laboratories who are making it their purpose to mark out new territories for investigation. Their work at its best will have the effect of increasing the sensitivity and critical awareness of all whom it influences.

In our own case there is now much questioning of the adequacy and effectiveness of these arrangements and indeed of the educational research results produced. Is the institutional framework up to its task—that of organising, co-ordinating and in the end spreading the results of research and development projects? How far are we prepared to allow for freedom of judgement over the factors in the educational process which are to be investigated or tested? How are teachers and others to become better informed about the nature of research and its outcome? Do we today evaluate with accuracy the actual or potential significance of research and development in education?

Human Issues in the Classroom

What should be the attitude of teachers in handling controversial human issues? Should they be prepared, if asked, to make some sort of commitment themselves? Is neutrality itself a form of commitment? The two following articles both have a bearing on these questions. The first, by the headmistress of a girls' school, describes changes which she initiated with the object of humanising relations between staff and pupils in the sixth form. The second, by a member of the Schools Council humanities project, discusses the concept of teacher neutrality in the handling of issues which elicit a wide range of arguable points of view.

Development of a Sixth Form

GERALDINE LACK

Geraldine Lack was Headmistress of Rosebery County School until her recent retirement.

Rosebery County School was in 1949 a three form entry single sex school with about 50 girls in the sixth form. The attitude of the parents at that time was not enthusiastic about allowing their daughters to remain at school after the age of 15 or 16. If the girls wanted to remain at school, on the whole the parents could afford to let them; but few of them wanted to do so.

By 1969 the pattern of sixth form studies had been radically changed and the school had acquired an extraordinarily lively sixth form of 380 girls. Why did these adolescent girls, full of vitality, choose to stay at Rosebery or to join it from their schools for sixth form work? What had made the difference?

I think that the answer lay in the fact that we refused to be dominated by the demands of the examination system, that we tried to provide a relevant and integrated curriculum for the sixth form particularly in relation to the present human situation, and that this changed emphasis in the curriculum fundamentally affected staff–student relationships. Perhaps a brief account of these three developments will at least provide a useful basis for discussion.

Examinations

We felt that the examination system was undermining much of what we were trying to do in the school, and distorting the values which we were trying to establish. It imposed on the curriculum a rigid pattern of subjects, and often limited and outdated syllabuses, which we seemed powerless to change. It affected much of the organisation of the school, the set timetable, the discipline, the traditional patterns of school life which had been imposed on generation after generation of children. The girls had to conform to the system, not the system to the girls. As teachers, we had felt uneasy about this, and were ready to try new syllabuses, and new methods; but we had not tackled the fundamental questions 'What should the secondary curriculum be concerned with? What kind of a school society should we be providing for our 11 to 18 year olds in the modern world?'

It seemed to be accepted without much question by parents, teachers, the public, and the girls themselves that intellectual values were the only ones that mattered, that only children who passed examinations were destined to succeed, those who could not were failures. And yet we knew that intellectual excellence was only one of many values. People could be gifted in many ways: in character, in personality, in art, in music or literature, or in forming satisfactory human relationships; and yet at school the all important success had to come through examinations. We knew that many of the people whom we most admired in every walk of life, both in the past and in the present, had not been particularly successful in examinations; many of them had not even taken them. Why was it then that a society which seemed to distrust purely intellectual values in politics and business laid such enormous stress on these values at the school stage?

Somehow we had to convince parents, employers and indeed the girls themselves, that examinations were our servants not our masters, that they had their uses but were fallible, and that values other than intellectual must have their place and importance in the school. The co-operation of the parents was particularly vital. Many of them, aware that the content of the subject syllabuses was changing with great speed, were inclined to opt out of the whole process of education. As long as education was seen as the process of getting the girls through examinations, then the idea that it should be a genuine partnership between school and parents remained strange and unacceptable.

Over the years we tackled the problem in different ways. Firstly we started, in staff meetings, in lessons with the girls, and at parents' meetings, to discuss the whole problem of what education should be about. We found the staff meetings most valuable and interesting; we learned a great deal from the girls about what they considered important and necessary, and we found the parents very ready to consider new ideas provided that they understood fully what we were trying to do. The by-passing of O-level, introduced when the new GCE examination was begun, and never allowed to lapse, as in so many schools, helped a great deal, particularly when it was found that entries to universities and colleges did not appear to suffer. Secondly, we decided to cut down teaching time for A-levels to half what it had been. We worked a seven-day rota of 49 periods. Girls did no more than three A-levels. We gave a period a day, or sometimes only six in seven days to arts subjects, eight to mathematics, and nine to sciences. This meant that as the number of lessons for each girl ranged from 27 out of 49 for a scientist, to 20 or 21 for a girl doing only arts subjects, we were left with at least 22 to 28 periods for experimental work with the curriculum and general studies.

General Studies Programme

This brings me to my second topic, the general studies course. There were certain features of the scheme that developed at Rosebery that are worth noting in relation to the growth and development of the sixth form. What made it different from most general studies schemes were three factors: firstly it was given a very important place in sixth form studies. In fact we liked to think of it as the centre of the sixth form course, giving it meaning and significance. The A-levels were linked to it as studies in depth of some aspects of the central themes and problems discussed in the general studies lessons. Secondly, the general

studies acted as an integrating force in the sixth form curriculum linking the different subjects studied for A-level and bringing subject staff together in a way in which A-level teaching could never have succeeded in doing. Thirdly, the general studies course had as its main emphasis a study of the different aspects of the world into which the sixth form were going, and a constant consideration of the relevance of what they were studying to the life that they were going to lead. It made some attempt to encourage girls to think constructively about many of the urgent problems that they would soon be facing.

We were only too aware even then that theirs was a world in which war is an ever present possibility. Throughout the history of man men have never learned to live together in peace, but now if there is to be any future for mankind they must do so. It is the world in which the population explosion is threatening the existence of man before the year 2000. It is a world in which the biological time-bomb and interference with the genetic code is making immediately possible changes in the future development of men comparable with what we have been able to do in the plant world in the last fifty years; a world in which the changes in the physical sciences have revolutionised our basic notions of time and space; in which, in spite of man's growing knowledge of the universe, his own place in it becomes steadily diminished. It is the computer world, the world of the organisation man; a world in which it is possible that there will be less and less work for people to do and that human life may be prolonged to 95. It is a world in which man's environment is being so rapidly changed and polluted that there is a serious threat to his very existence.

Finally it is a world in which we find our aesthetic judgments confused and uncertain, and in which all accepted moral and religious values are being questioned and challenged.

In the face of this picture we realised, even twenty years ago, that our traditional subject curriculum did not make sense. The girls needed to be made aware of what was happening, they needed to understand the social implications of new developments in science and technology. They needed to be given scope for the idealism which we know is such an essential part of youth, and to be given ways of approaching these problems constructively. They needed encouragement and help in believing that the problems could be tackled by them, working together as members of a democracy in which each individual had a genuine chance to make his own contribution felt.

It was to meet these demands that we built up our general studies course as a series of related lessons. Its aim was not to impart factual knowledge but to create a desire for further reading, and to stimulate thinking and discussion. We did not examine the work, believing strongly that at least one area of sixth form studies should be kept free from the burden of examinations.

The link between the lessons was provided by the aims of the course. The first problems which faced the girls entering the adult world were the problems which face all human beings, the nature of our experience in this world; questions about God, about ways of knowing, about values, about human societies and loyalties, about psychology and human relations, so that the first two lessons which we put in, one in each seven days throughout the two-year course, were what we called philosophy and religion. These were linked by the fact that the

philosophy lessons asked the questions and posed the problems (they were in no sense history of philosophy lessons), and the lessons on religion gave, firstly, our western society's answer to some of these problems, the answer given by Christianity, and, secondly, in the study of comparative religions, the answers given by other societies too.

The next situation encountered by the girls was their role as voting citizens of their country, with responsibilities towards other nations. This led to the continuation of the current events lessons, already given throughout the school, and discussion lessons on political philosophy, on the Greek and Hebrew traditions and on the social implications of science and technology. Part of the time was given over to a short course on economics as a result of a request from the girls.

The third area of human experience in which we hoped all girls would share, particularly in view of the greater leisure they would have, was the world of art, literature, music and drama. We also added beginners' courses in foreign languages to the scheme.

Book lists, continually revised, and books were naturally an essential part of the course. These were provided not only in the library but in a paper-back bookshop, opened in school once or twice a week.

The groups for these general studies lessons were mixed groups, arts and science students, A-level and non-A-level. Originally we tried to keep groups down to fifteen for discussion purposes, but unfortunately as the sixth form grew so did the size of the classes, and there is no doubt that to the extent to which this happened, so the value of the general studies course declined.

Naturally, the courses were linked to numerous out-of-school activities and societies such as the Council for Education in World Citizenship, the science clubs, and the debating society. Lectures from outside speakers, films and discussions, all played their part in the scheme. Many members of the sixth form, as in other schools, also voluntarily engaged in social work of various kinds.

Many schools have been afraid, as we were to begin with, of devoting too much time to what might be regarded as peripheral studies or vaguely cultural activities, but our experience altered our opinions. Although we were all aware of the inadequacy of much of what we did, and were only too conscious of failures as well as of successes, we had no doubt that the attempt to alter the emphasis of sixth form work, and to carry out the scheme as it changed and developed from year to year, was very worthwhile, not least for the less academic girls who enjoyed the general studies programme, and had a great deal to contribute to it. We had strong endorsements of the value of the course from the great majority of school leavers, whether at university or college or hospital or at work. Similar encouragement came from members of university departments, who wrote expressing sympathy with our aims.

Demands on the Staff

Finally we felt that the course had a profound effect on the work of the staff. Some of us were doubtful about its values to begin with. Was it sufficiently rigorous? Did it demand enough of the girls and did it make too great demands on the staff? By the end of the time most of us

felt that it had been tremendously worthwhile and ought to have been extended from the sixth form to the main school curriculum. Our chief reasons for feeling this were, in the first place, the effect, already described, on the girls themselves. But secondly we as a staff had to emerge from our subject disciplines, read more and read more widely, and be prepared to spend some time, in a critical rather than receptive state of mind, on TV and radio, and at least some of the media to which the young had become addicted, as well as on our own special interests.

We also found that our relationship with the girls had begun to change. In the general studies course we met them on equal terms, trying to face the same problems. This demanded of the staff not so much academic ability, though this was useful, but other qualities even more important. It demanded of us absolute honesty in our approach to the problems we were discussing—not always an easy task; secondly the courage and persistence to think the problems through to the best of our ability, and also to be prepared if asked for it to make some sort of commitment ourselves. We cannot help young people if we remain sitting on the fence. Lastly if a tentative answer was given, then the third quality demanded of us was humility because the girls had a right to reject our point of view provided that the rejection was made with courtesy and with reasons to support it, incidentally, an excellent preparation for their university life later.

In thinking of the girls in this way, as young adults facing an extraordinarily difficult world, we also realised that we should have to give them more freedom and more responsibility appropriate to their age, so that they would take their share of responsibility in the wider communities outside school. We took them out of uniform about fifteen years ago, and encouraged them to be responsible for the running of their own affairs and for most junior clubs and activities. In time we realised that this process would have to begin with the first form—you cannot suddenly give freedom and responsibility at the sixth form stage (any more than you can suddenly give it at the university stage), and the School Council, consisting of one member from every form and of sixth form and staff representatives, began to play a very big part in the life of the school. Form committees and a sixth form council gave still further opportunities for discussion and action, but in whatever we did, staff and girls worked and planned together, and consequently the pattern of relationships altered. It became a community in which mutual respect and consideration, and intelligent and shared planning of the life of the community replaced the old authoritative pattern.

All of this naturally meant a much more explicit consideration of the values on which our community life was based. We were no longer prepared to accept the 'system', but we tried to begin in the first year again to make clear that what we were doing in school was to learn to live together in a community, but that this was only going to be the first of many such communities into which the girls' lives would take them. We realised that as they grew older and met more people, their sympathies and understanding of the needs of others must develop. But this understanding could only develop within the situation experienced by the child; at home and school while she was very young, moving out to her peer groups and her local community as she grew older, and finally with the general studies course in the sixth form it

must embrace the family of the world. The lessons she attended at school, the subject disciplines, the school organisation, everything she did, only made sense in this context. School had to become not only a preparation for life or merely a place of instruction, but somewhere where the children could live their lives fully, where mutual respect and love for others were the basic values of the school, and where there was freedom for the girls to grow and develop their many gifts and interests without always thinking of examinations.

What we had failed to do in the past was to communicate these values to the children. Now by explicit discussion, and by making these values implicit in the organisation and relationships within the school, we could give a unity and meaning and an excitement to the life in school which had never existed before.

Neutrality as a form of Commitment

JOHN HIPKIN

The most controversial feature of the Humanities Curriculum Project is undoubtedly the concept of teacher neutrality. For many teachers the suggestion that they should appear indifferent to human issues, seems to deny their essential responsibility to help their students become conscientious and committed adults. Because I believe this interpretation of what the project means by neutrality to be a mistaken one, I should like to try and define a little more clearly what it seems to me to entail. I hope to show that far from denying the teacher's role as a guardian of certain vital educational values, it can help us to think more deeply about what these might be, and how they can best be achieved in practice.

John Hipkin is a member of the Schools Council's Humanities Project.

To understand how the concept of neutrality has come to assume such an important place in the project's thinking, we need to consider one of its major premises: that controversial issues should be handled in the classroom with adolescent students, for it is this assumption which largely gives rise to the notion of teacher neutrality. We define a controversial issue as one which divides men and women in our society, which elicits a wide range of arguable points of view. These divergencies of view arise, it seems, not simply because some people understand the issues in question and others do not, or because some are benevolently motivated and others are not, but because the issues are capable of being understood differently. What seems to affect what people think and feel about them are their individual frames of reference and, more important, their value-systems. This view is not meant to justify moral relativism, a belief that in the moral sphere one man's meat is another man's poison. Of course, our culture embraces a number of important criteria for the evaluation of human conduct—promise-keeping, truth-telling, consideration for others and the like—but they do not ordain what precise moral positions we ought to adopt in concrete cases. These are a matter for negotiation with our consciences, bearing in mind the kind of criteria I have mentioned. The

aim of the project is to help pupils gain an understanding of a wide range of value problems.

Let us take as an example of a controversial issue, the Allied decision to drop the A-bomb on Hiroshima at the end of the last war. How do we develop an understanding of the value-problems raised by this particular act? Clearly, we shall need to know what were the intentions of those who ordered the bombing. How did they interpret the situation with which they were confronted? On what advice did they act? We shall need to know something, too, of the effects of the bombing: upon the Allies' war strategy, the Japanese military command, the civil population, and subsequent generations. To a large extent such questions are empirical, matters for research and investigation, but if we explore their ramifications all sorts of value-problems begin to emerge: should warnings of the attack have been issued? Should weapons with so little discriminative power ever be used in war? Should the war against Japan have been brought to a conclusion by more conventional means? In order to understand this issue we shall need, in short, to educe the widest possible range of what we may judge to be the relevant evidence but the significance we give to the different kinds of evidence and the weight we attach to different considerations will largely reflect each individual's hierarchy of values. Controversiality in this sense seems to be implicit in human experience.

The project places this controversiality, or variousness, as we might call it, at the very centre of the humanities curriculum, and attempts to reproduce in the discussion group setting something of the divergence and tension which men and women feel when confronted by these issues in their lives. Members of the discussion group will not however, 'be on the outside looking in'; for many of them issues raised by sex, war, the family, race etc. will have a deep personal relevance. They will find it impossible to consider such problems in a coolly detached or strictly cognitive fashion. To try in the discussion of these issues, to understand how other people feel, may be to expose some students to painful conflict involving their estimation of those they love and respect. To admit to the possibility that our life-long convictions may be incomplete or mistaken is not always simply a matter of adjusting our intellectual positions, for it can throw into the balance many of the assumptions upon which we have built our identities. A classroom discussion is not, therefore, an exercise in sophisticated debate so much as a critical scrutiny of what makes us the people we are and this we discover, not through any conscious technique of self-revelation for its own sake but simply as we explore together what we and other people really care about in life. Considerations such as these have a close relationship to the problem of how we, as teachers, should set about handling the discussion of issues. How can the teacher help students to contribute to discussion, to offer for discussion their view of themselves and the world they inhabit and yet not appear to approve the testimony of some, and to reject that of others?

There are a number of stances that the teacher might adopt in the way that he chairs discussions. He might seek to promote his own point of view and to discount any which is at variance with it. This approach would not, I imagine, gain wide approval since it denies the student even the possibility of gaining self-responsibility in the exercise of his judgement. It smacks of indoctrination. He might, alternatively, espouse different points of view as the needs of the discussion group

determine. Some teachers, it is true, are very adept at this kind of exposition but the understanding of a complex issue more often involves a kind of imaginative identification with others in the terms in which they see and express their experience. To filter their experience through the person of the teacher, however sensitive he may be, is likely to rob it of much of its authenticity and power.

A third approach might be to present what is thought to be a consensus position, that is one which, it is claimed, elicits universal agreement. This assumption would, of course, render discussion superfluous since there would be no issue to explore in the sense in which we have defined it. In practice, consensus seldom exists on important questions of conduct and any claim that it does, needs to be examined carefully, for it may merely seek to enlist on behalf of a controversial opinion the alleged weight of undisputed authority. A variation of the consensus gambit might be for the individual teacher to enter into either a tacit or overt compact with his colleagues to promote a position agreed among themselves. This would seem to involve the exercise of unfair pressure upon dissident colleagues and might lead to an invidious form of opinion-screening. Still other teachers might prefer to stress the factual content of issues, to offer a range of information from which students are encouraged to draw their own deductions. This approach appears plausible but it does not meet the objection that facts represent but part of the data for the understanding of human issues, for the choice of what constitutes relevant information is itself, in part, a product of a pre-existent value-system. A Marxist historian, for example, will draw the attention of students to a very different range of factual data from that selected by a liberal colleague. Facts are only of use as part of an explanatory system, and these are notoriously value-laden. None of this invalidates 'objective' information as a source of understanding but merely serves to remind us that facts only achieve usefulness within a comprehensive evaluative system, and therefore stand in need of judgement just as much as more subjective data.

The project's view is that of all the possible stances open to the teacher, the most appropriate is likely to be one based upon the criterion of neutrality. (I put it in this guarded way to stress that strict neutrality is seldom achieved in practice but nevertheless constitutes an aim worth pursuing.) Neutrality in this sense is procedural, that is, the teacher desists from the expression of his own point of view for the purpose of discussion. John Elliott, a co-worker on the project, has expressed this point as follows:

> A teacher is not only responsible for the purity of his intentions. He is also responsible for the effects of his behaviour on his students. Although there is no necessary contradiction between the expression of personal views and procedural neutrality, there may be practical difficulties in actual educational contexts. Years of educational conditioning make it extremely difficult for students to understand and accept the teacher's abdication from being the source of all wisdom, so ingrained is the notion that he is its fount. . . . If his students persist in ascribing an uncritical authority to his views, then some kind of closure is put upon the range and depths of viewpoints explored. The development of understanding is thus prevented.

If the teacher is to accept limits upon himself as the source of opinion and information he must clearly have at his disposal an alternative fund of what we have called 'evidence', culled from original sources and as

balanced and far-ranging as possible. Ideally, the evidence should be used, not in order to favour one particular viewpoint, but solely as an aid to understanding. At one stage, for example, the group may demonstrate a strong predisposition to consider only position A, so that evidence from sources B, C, etc. might usefully be offered as alternative perspectives from which to appraise their position. At another stage, a student may have difficulty in articulating his point of view and he may be helped by the presentation of supportive evidence; another difficulty might be the preoccupation of the group with a single category of evidence, for example, the historical or the sociological. They might benefit from the opportunity to consider the matter from a quite different standpoint, perhaps of a kind offered by literature or religion. Thus the criteria governing the selection of evidence are derived from the needs of the discussion group, and not from any preconceived notion of which view should prevail.

The teacher is neutral, then, only in relation to the conduct of discussion; he does not promote his own point of view because he fears that it might frustrate the aim of understanding. What neutrality seeks to safeguard are the processes by which men and women come rationally and responsibly to believe what they do; the teacher's professional concern is with the development of his students as autonomous beings, capable of thoughtful judgement and critical commitment. So far as these educational values are concerned he is far from neutral; indeed his belief in them places him firmly in the tradition of humane rationalism, a position which we know only too well does not enjoy universal acceptance. Neutrality in this sense, far from involving an abdication of responsibility or an emasculation of the teacher's role, represents a positive affirmation of a number of important educational values. It is, nevertheless, true, that the view of neutrality which many teachers, especially those without direct experience of the project, have formulated is one which seems merely to deny the bias or dominance of the teacher, and they find this an unappealing model of teaching.

Many teachers find great satisfaction in stimulating their students to an awareness of what it is to feel committed to certain worthwhile principles and codes of behaviour. There is undoubtedly a form of charismatic teaching which does not inhibit the potential development of learners, indeed it often appears to invest subject-matter with a vitality and significance which, in the hands of less dynamic teachers, often leaves students unawakened and indifferent. It would be a pity indeed, if such teachers concluded that the neutral chairman's role was likely to deprive them of such satisfaction, for they are precisely the kind of teachers who are most likely to make the project challenging and worthwhile. What might teachers of this kind find of value in this exercise of the neutral chairman's role?

The power of the project to motivate students has been widely acknowledged. The subject matter—issues which people care about—and the materials—films, tapes, photographs, short stories and the rest—normally elicit positive reactions from students with average curiosity (IQ seems to be relatively less important in this respect). But it is precisely because the content is so inviting, the objectives of the enquiry so individualised and the responsibility of the learner so integral to the achievement of the aim, that it becomes all too easy to

vindicate the project solely on motivational grounds ('They talked non-stop for half an hour'). What perhaps is most challenging in the project is the problem of how to sustain this motivation and at the same time develop standards of clarity, rigour and sensitivity. Such a task calls for great managerial skill in the teacher—the knowledge of when discussion should give way to role-play, how to produce the right tape-recording just when it is needed, how to get colleagues to offer testimony drawn from their own experience, how to divide a discussion group into sub-groups with student-chairmen, how to make the drawing up of a questionnaire a matter for detailed analysis and so on. This kind of flair and inventiveness can make an otherwise dull activity come to life. But perhaps the most exacting feature of the chairman's role is concerned with the growth of intellectual standards, both in himself, and in his students. Consider what the conduct of discussion involves in this respect. First the teacher must help the group to evolve an issue. This takes time, for the skill which lies in asking potentially fruitful questions, is of far more value than the formulation of trite answers. He must understand a great deal about the issue under discussion and know how the evidence available to him can help to elucidate it. He must make sense of the behaviour of the group, how its members affect one another and how its social dynamics can be mobilised in furtherance of the aim of understanding. He must have a sensitive awareness of how individual students construe the world, and how best they can be helped to break through the psychological constraints of prejudice and customary thinking. He must be conscious of the kind of knowledge questions which are under discussion, and know what validation procedures are appropriate in different domains of knowledge. He must know what to expect of evidence and how to encourage his students to approach it realistically. Finally, he must take constant account of the progress of enquiry and assess what it requires for its further development.

I have described the project teacher as in the mainstream of humane rationality. Erich Froom in his memorable introduction to Ivan Illich's *Celebration of Awareness* might well have been describing the kind of teacher I have in mind in his account of what he calls 'radical doubt':

> Radical doubt means to question; it does not necessarily mean to negate. It is easy to negate by simply positing the opposite of what exists; radical doubt is dialectical inasmuch as it comprehends the process of the unfolding of oppositions and aims at a new synthesis which negates *and* affirms. Radical doubt is a process; a process of liberation from idolatrous thinking; a widening of awareness, of imaginative, creative vision of our possibilities and options.

This is the kind of promise which I believe the project, at its best, holds out to teachers but if we think of education as a process of initiating the young into a fuller knowledge of what our world is like, and into a deeper understanding of the place they can occupy in it, then that same promise is one which is offered to students in their progress toward maturity.

School attendance is affected by various conditions, ranging from the success or failure of pupils, in their work or in their relations with teachers and other children, to the pressures on them at home. This article reviews the present state of knowledge.

Absent from School

MAURICE J. TYERMAN

Maurice J. Tyerman is an HM Inspector in the Metropolitan Division of the Inspectorate.

The circumstances covered in any enquiry into school attendance are likely to be only a few of the many that are possible. It could be argued, however, that the sense of purpose in the school that parents, teachers, the related welfare organisation and, above all, the pupils feel is the single most powerful influence on attendance. This will be of particular importance with boys and girls compelled by law to stay at school after they reach the age of 15.

There is a growing interest in rates of attendance among those who are heartened by the annual increase in the number of pupils voluntarily staying at school, and on the other hand among those who believe that there is already too much unjustified absence from some schools and wonder if problems will only be made worse by the extra year. How real are these fears? Some assessment can perhaps be made by reviewing what is already known about children who fail to go to school regularly and by examining current trends in attendance rates against the background of educational, administrative and legal procedures:

In *Truancy*, written in 1968, I drew the following main conclusions:

i. Absence because the parents do not send their child to school is often a sign that he is generally neglected at home. A child who truants regularly will probably have emotional problems and be developing delinquent tendencies. A child with school phobia is distressed about circumstances at home, at school or both. They are all warning signs. Yet, whilst considerable attention has been paid to the topic of school phobia, the commoner problems of truancy and parents keeping their children away from school have been seriously neglected by research workers. Truancy has generally been studied as an incidental aspect of wider problems such as delinquency, and truants themselves have tended to be dealt with in school or in court as children who are misbehaving. Children with school phobia on the other hand have been regarded as ill and requiring psychiatric help.

ii. This distinction is unjustified except in a few cases. Children should be treated as individuals rather than examples of a type. Frequent absence, for whatever cause, is a matter of concern; each case should be thoroughly investigated and appropriate measures taken. There is no one cause and no one treatment.

iii. Much of the literature on children with school phobia is based on psycho-analytic theory rather than on a systematic study of the whole personality of the child who is in difficulty. The generally quoted view is that school phobia is in effect separation anxiety. This leads therapists to overlook the difficulties a child may be facing in school. There is no evidence that psychiatric treatment is more effective than that of a general practitioner, or a gradual return to school with the child being supported by a social worker.

iv. Since there are not enough psychiatrists and psychologists to treat all children who do not go to school regularly, help should be organised within the school, by a greater support for education welfare officers, and by a closer integration of the school and social work agencies.

Let us now consider each of these conclusions in view of legislative developments and more recent research.

Recent Research on Truancy

The Seebohm Report (1968) took truancy seriously. It suggested that it 'is likely to have much deeper roots and wider implications than the symptom of persistent non-attendance' (para 189), and that it is a symptom of distress as well as a possible sign of a child's unhappiness in school. But in leading educational and psychological journals only three articles in three years have been traced, though in the United States there are innumerable studies into the related problem of 'drop outs'. An article by Christmas and Binyon in January 1970 supported the views described above. It concluded: 'Truancy is not just running away from school: it is inextricably tied up with more profound social and educational problems'. The second was published by Demsch and Garth in April 1970 in *Psychology in the Schools*, an American journal with a very limited circulation in this country. It described a multi-disciplinary team approach to attendance problems in Chicago public elementary schools. If a school in that city cannot improve a pupil's attendance he is referred to a committee of social workers and administrators who try to discover his needs and then take appropriate action. Of 80 children referred 52 were transferred to special classes. Figures are not given in sufficient detail to enable the results to be judged objectively, but the authors report that 'everyone concerned ... feels that the project is a success'. A third, by Tennent (1970), reported little difference in background between a group of truants and a group of delinquents.

On prosecutions for absence the only published article traced is that of Tennent* (1970) who deals with court action by the ILEA during 1966–7. A further paper by Tennent (1971) discussed the well-documented finding of a close link between non-attendance and later delinquency. There have been unpublished reports on absence rates and court action by the National Association of Chief Education Welfare Officers, and by a number of chief education officers.

Absence Rates

From these reports it seems that during the past eight years there has been little change in attendance rates. If absence were evenly distributed, every child would be away from school one half-day a week. Averaging the figures over all types of schools throughout the country the percentage of attendance seems still to be about 91 with little difference between borough and county education authorities. However there is some variation between individual authorities, and some wide differences between schools within an authority and between classes in the same school.

In some secondary schools there is a tendency to greater absence in the lower streams, and for this rate of absence to increase in such lower streams from the younger to the older forms. In lower

* *Educ. Res.*, 13, 185–90.

streams absence and truancy are sometimes taken as a matter of course: the children showing by their absence their rejection of the values of the school and what it offers them.

In one very large authority the overall attendance rate in 1970-1 was 87.81 per cent compared to 89.18 in 1969-70. In the division with the lowest attendance the figure for secondary schools was 86.05.* In another authority the attendance in secondary schools declined from 91 per cent (1960–1) to 87.1 per cent (1969–70) whilst that for primary with special schools remained around 89 per cent.

Throughout the North West of England the overall percentage of attendance in a week in May 1971 was approximately 92.9 per cent but such overall figures mask the number of children who are frequently absent and differences between schools. In one of the authorities, for example, the average attendance rate in 1969–70 had varied between schools from 94 to 75. The North West Regional Society of Education Officers† found that 18 per cent of all pupils were absent at some time during the week, 26 per cent from special schools, 25 per cent from secondary modern schools, 24 per cent from comprehensive schools, 16 per cent from primary schools and 15 per cent from selective secondary schools. Out of 707,904 pupils on roll in the region, 128,959 were absent some time during the week: 23,806 (3 per cent) were absent once; 46,718 (7 per cent) twice; 5,577 (1 per cent) three times; 16,355 (2 per cent) four times; 2,401 five; 8,085 (1 per cent) six; 1,241 seven; 5,116 (1 per cent) eight; 940 nine; and 18,720 (3 per cent) ten times. (The percentages quoted are approximate.) The large industrial conurbations had most absence, and the rural areas and small boroughs the least.

In a 5 per cent sample of schools throughout the Region an attempt was made to investigate the reason for every absence from those schools during the week. The criteria used for selecting the particular schools in the sample are not stated. Widely differing results were reported by different local authorities. This may indicate that the schools chosen were very different from each other, and that possibly the total sample of schools was not representative of all schools in the Region. The results were not weighted for such conditions as type of catchment area or size of school. As the Society implies in its report the figures should be treated with reserve. After allowing for different methods of recording used by different local authorities and then averaging the results, the figures suggest that in this particular sample of schools illness of the child was thought to be the main cause of absence in 63 per cent of cases, and possibly also in a further 9 per cent; parents condoning absence or keeping their child from school for home duties or because the mother or father was ill, 15 per cent with a further 3 per cent because the parents were on holiday; oversleeping and lateness 5 per cent; truancy by the child 5 per cent. (The percentages are approximate.) In this sample illness seemed to cause rather more absence from infant and junior schools than from secondary whilst parents allowing their children to stay away from school and truancy by the pupil was more common among secondary

---

* *Times Educational Supplement*, 2nd July, 1971.

† A short account of the report is given in the *Times Educational Supplement*, 8th October, 1971.

schoolchildren than primary. There seemed little difference between types of school in the amount of absence due to lateness and oversleeping, and to money difficulties.

On causes of absence mention must be made of the survey of 21,933 children, all those aged 9–12, in the Isle of Wight (Rutter *et al.*, 1970). No case of persisting school refusal was found. 'Many children showed anxiety about going to school or about separating from their parents (but) there were no cases where this was the chief problem' (p. 183). Court action is rarely taken in cases of repeated absence, and when it is started it is often dropped when a child starts, perhaps temporarily, to go to school. Absence is usually not regarded as serious enough for widespread court proceedings. As a very rough estimate, for truancy or for keeping a child away from school, there is only about one prosecution a year for every 1,000 pupils on roll.

School Phobia

In school phobia, a much smaller problem than truancy in the numbers of children concerned, there appears to be greater academic interest. Fifteen articles in the last three years have been traced, but they contain little development in theory; for this one must turn to articles which deal with phobias in general.

The most objective publication on school phobia is the detailed and valuable account given by Berecz (1968). He reviewed and analysed approximately 200 books and articles on phobias and related issues that have appeared between 1927 and 1967. His general findings are in line with those in *Truancy*.

Perhaps also worth mentioning, although the sample is small and the methods adopted suspect, is the follow-up study made by Weiss and Burke (1970) of 14 young people aged 14 to 23 who six years earlier had been treated in hospital. These pupils' memory of their difficulty was mainly of needing to stay at home to feel more secure or because of concern for their mother. 'Only a few' saw their problem as being fear of going to school or fear of people.

Pittman *et al.* (1968) related the syndrome of work phobia to school phobia. They studied 11 cases where the man was afraid of leaving home to go to work. Nine of them had histories of school phobia or severe reluctance to go to school.

Two articles, those of Kahn (1968) and Radin (1968), support the view that the causes of the phobia may in certain instances lie in the school rather than the home. To avoid making a distinction between truancy and school phobia the term 'school refusal' is being increasingly used by teachers. The concept of 'school allergy' has also been introduced (Sumner and Warburton, 1972).

Reid (1968) and Barnett and Lees (1968) discussed the old question whether in helping a child with school phobia a strong attempt should be made to get him back into school as soon as possible. They suggested that all children with such fears cannot be treated in the same way; some should be encouraged to return to school, others 'desperately need shelter'. It would seem obvious that a child should be treated as an individual and not as an example of a type. Treatment of any child must be based on the careful diagnosis of that child's individual difficulties.

Pastoral Care in Schools

The love, support and encouragement that a child receives at home is the most powerful of all the forces that affect his behaviour and progress, both in and out of school. Numerous reports during the past fifteen years testify to this. But although the influence of the home is paramount, enquiries in the West Riding, Tower Hamlets (Power *et al.*, 1967) and elsewhere indicate that the concern which a school shows for the individual pupil can affect delinquency rates, particularly of stealing and truancy.

A good school attempts to meet its pupils' needs, to move into a close relation with them. Measures towards this include parent/teacher co-operation, smaller classes, remedial education within the normal class, and the development of pastoral care in secondary schools including counselling services to give immediate help to children who need it. Teachers in secondary schools are becoming more involved in the general as well as academic welfare of their pupils, accepting the role that primary school teachers have traditionally welcomed.

The Department's Circular 8/71 stresses that whilst 'the provision of guidance and counselling is, of course, the responsibility of a school throughout the pupil's education; . . . with the raising of the school leaving age it will be particularly important for a pupil to receive effective guidance before reaching 16' (paragraph 16). Many teachers without special training have considerable pastoral responsibility as house-masters or year-masters, and spend a significant proportion of their time on such duties. Some have been trained as counsellors and carry out such duties full or part-time. They report that truancy, 'fear of school', and the child being kept at home by his parents are problems they continually meet: but no comprehensive figures are available. It seems probable that immediate help from a counselling service in the school might better relieve anxiety than a series of psychiatric interviews after a lengthy delay. The counsellor would be a first screen, with only the more complex problems going to the psychiatric services. There is, however, an absence of studies into the effectiveness of such school counselling services. These would be difficult to carry out, but there would appear to be a need for such research.

Educational Welfare Teams

Two local developments among several along Seebohm lines are perhaps worth describing as examples of measures that many areas are taking to strengthen and reorganise their welfare services. In Liverpool social education teams have been set up: these link the child guidance and school psychological services, remedial teaching teams and educational welfare services into five teams. They are co-ordinated by a newly created branch of the education service. For each team there is an educational guidance officer who co-ordinates the activities of the various professional members of the social education teams and pays special attention to social factors that come between children and their education. The child guidance and school psychological services are being strengthened and developed into a new school-centred service concerned with the early identification and treatment of children with learning, behavioural, emotional and social handicaps. These education guidance teams regard irregular school attendance as a symptom of an

underlying cause requiring full detailed investigation. In Liverpool also the police have developed a full juvenile liaison scheme.

The ILEA has also reorganised its education welfare service unifying the former school care service and the school inquiry service. The new education welfare teams are area-based but school-oriented and work in close co-operation with schools and families to provide an effective service to both. The task of the welfare service is to identify and assist children in social distress and to help develop close relations between all parents and their children's schools. A booklet circulated to all its schools by the authority describes careful plans to ensure that absence from school is promptly detected and quickly and effectively remedied.

Children and Young Persons Act, 1969

Possibly the biggest advances in helping truants and other children in difficulty have been the Children and Young Persons Act (1969) and the Local Authority Social Services Act (1970). This Children and Young Persons Act embodies certain principles:

i. Juvenile delinquency has no single cause, expression or cure. Many children commit delinquent acts but whether or not they appear in court is frequently a matter of chance determined by local circumstances and social background.
ii. Early recognition and full assessment of children's needs are essential if they are to be helped.
iii. There must be a variety in the forms of treatment available, ranging from supervision while remaining at home, through short-term intermediate treatment to long-term residential care of different types.

Section 1 of the 1969 Act replaces previous care, protection and control jurisdiction, and the provision of the 1944 Education Act relating to the powers of the juvenile court in cases of absence from school. It includes the commission of an offence as one ground for care proceedings. The courts now have powers to make three basic orders: committal to the care of the local authority, a supervision order, and an order binding over the child's parents with their consent. Hospital and guardianship orders under the Mental Health Act and orders for the payment of compensation for damage caused by offences may also be made. The spirit of the Act is to encourage preventive case work with families and children and the police are encouraged to appoint a juvenile liaison officer in each area. The police also become involved in welfare work through a system of formal cautioning.

Since 1 January 1971, courts are no longer able to make approved school orders. These become orders committing the children to the care of the local authority, and it is the responsibility of the local authority to decide what care the child needs, whether residential care or supervision at home, and for how long that care will be given. Approved schools will continue to exist for another two or three years but will then become community homes. They will be residential provision organised on a regional basis for all children who need them, not just for those who have got into difficulty with the law.

The central feature of the new Act is the complete merging of provision for delinquent and non-delinquent children. These new arrangements which will come into force gradually, will necessitate close links between schools, children's departments and education departments. Power will be moved from the central government (approved schools) to local government (community homes). Under the Act it remains the

responsibility of the local education authority to decide in cases of absence from school, whether to prosecute the parents instead of, or as well as, bringing the child before the court with a view to care proceedings. In the latter case, it would be necessary for the authority to show that in addition to being frequently absent from school the child was also in need of care and control which he would be unlikely to receive unless the court made a care order. It is still the duty of the parent to ensure that his child attends school (Section 36 of the 1944 Act): this duty is not relieved by a parent's ignorance of his child's truancy (Queen's Bench Division ruling in Crump v. Gilmore, November, 1970). There is however, no obligation on a parent from the Commonwealth or a foreign country to send his child to school, or on a local authority to provide education for Commonwealth or alien children if they are staying in Britain for less than six months, but they must do so for children who stay more than twelve months. Cases falling between these limits should be dealt with on their merits.

Local Authority Social Services Act, 1970

The Local Authority Social Services Act which came into force on 1 April, 1971 applies the main proposal of the Seebohm Committee which reported in July, 1968. As in Scotland, a new local authority social services department under a director of social work will integrate an authority's social work services in a single department under a single committee. It will take over the functions of the local authority's children's department, welfare department and some services undertaken by its health department. An authority's social service department will be responsible for the care and control of children and the welfare of the elderly, as well as of those who are handicapped physically and mentally. Such plans, however, are blueprints which can do little until more skilled social workers are available.

The Act did not apply the Seebohm recommendation that the social service functions of the education welfare service should be transferred to the social services committees of local authorities. This is left to each authority to decide for itself. The reason is that family case work has developed out of certain statutory functions, including enforcement of school attendance, which would naturally remain with the education authority and would be difficult to disentangle. Generally authorities have retained their education welfare services, only about six have transferred most of their responsibilities.

The Seebohm proposal that all cases of truancy should be investigated by a social worker attached to the school was also not followed. The Government also took no action on the Seebohm recommendation that child guidance should be transferred to social service departments. Whatever the administrative framework, teachers, schools and education authorities must have social work contact with their pupils and their families. Arrangements whereby effective help can be given without delay. When people need help they need it now, not at some remote date in the future.

The author has compiled a bibliography on the subject of truancy, copies of which are available on request—Editor.

The problems and the potential of small comprehensive schools have been examined from various angles in recent issues. This article summarises the ideas put forward.

The Small Comprehensive School Debate

S. E. GUNN

S. E. Gunn is Staff Inspector for Secondary Education.

In three recent issues of this journal four contributors have discussed the problems of the small comprehensive school. Elizabeth Halsall of the University of Hull, perhaps the best known and most persistent supporter of the small comprehensive as a viable school, opened in Trends 22. In number 23 T. I. Davies of the Welsh Inspectorate described the restricted or limited viability of comprehensive schools of less than 6-form-entry; and Celia Barker H.M.I. discussed the three small comprehensive schools in Westmorland asking herself two questions, 'Are these schools viable and on what criteria is one to base a judgment?' In Trends 24, Edward Conway who as a headmaster has expanded a 3-form-entry secondary modern into an 8-form-entry comprehensive wrote about the lessons prompted by his seven years experience.

First a definition of terms. By small comprehensives is meant schools of 3-, 4- and 5-form-entry. This is smaller than the smallest to achieve unqualified approval in circular 10/65*. It is well to remember that schools of this size actually exist, that we have a good many 5-form-entry comprehensives, a fair number of 4-form-entry (particularly within those forms of organisation with a restricted age range), and a few (a very significant few) 3-form-entry schools with age ranges of 11–18. A discussion of this sort must be largely concerned with practicability, and should avoid arriving at a statement of viability by simple computation.

One of the many facts which emerge from the two published phases of the NFER comprehensive research begun in the middle 1960s is that so far secondary re-organisation has not produced a system of large comprehensives of the size and type envisaged in the 1950s, when the actual planning and building of the early comprehensives was undertaken. Elizabeth Halsall touches upon this matter at the beginning of her article. It was often assumed in those early days that if a comprehensive school was to offer the curricular range of a 3-form-entry grammar school it would need to be four times as big as the grammar school, assuming that the latter recruited from 25 per cent of the ability range. It was often assumed also that comprehensives would not be viable unless they could offer the very large range of subjects customarily available in the larger grammar schools. This connection between large size and viability often firmly propounded by both friend and foe of the common secondary school, survived longer with its

* 'It is now clear that a six- or seven-form-entry school can cater properly for the whole ability range and produce a viable sixth form.'—Circular 10/65.

opponents than with its supporters. But the vast range of A-levels of the very large sixth form had never been a characteristic feature of the many small grammar schools of 2-form-entry. The rate of staying on into the sixth form increased during the 1950s and early 1960s in such a way as partly to invalidate the old maxims about size and, in any case, in a situation where grammar schools and comprehensives co-exist (which meant and still means most places) a school offering the 10 or 12 A-level subjects which constitute about 80 per cent of national demand will often meet most of its sixth formers' needs within its own walls.

Size, Opportunity and Economic Efficiency

For such reasons notions about the optimum size of comprehensives changed considerably. The large school has never been seen in Britain as an end in itself, unlike the small school which has many friends. Rather was the large school accepted as a necessary by-product of a comprehensive system. In fact, the twin aims of most of those who have supported comprehensive re-organisation have been to eliminate selection at the point of transfer from primary to secondary education and to increase opportunity right across the ability range. These aims do not in any way postulate very large schools of 15-form-entry and 2,000 or more pupils. But in the public mind the connection was established, and as the new large buildings went up they were sometimes described as 'sausage factories', not presumably because the sausage has to be made in a large building, but because it was thought that the processes of education in a vast institution would resemble the mass production of a uniform article. Just as we know these fears to be false in the case of 15-form-entry schools, so also we know that these large schools have produced formidable problems of communication and organisation which have to be set against the undoubted curricular advantages of large size. But though this article cannot avoid frequent contrasting reference to large schools it is not the present purpose to discuss them in detail.

However, since the supporters of the common secondary school saw it as part of a system which would make sensible, efficient and economic use of our resources, so also many of them had doubts about a pattern of 11–18 schools which involved a proliferation of sixth forms each of which would attempt to offer 18 or more A-level subjects. If this proliferation were to contain small schools and small sixth forms it was unlikely to commend itself as an efficient use of our national resources at sixth form level. The substantial growth in both popularity and practice of separate sixth form institutions over the last six years is presumably the response to these fears. In 1968 a research document entitled *Sixth-form Opportunities in Inner London*, examined the problems of sixth form A-level viability, and the general conclusion emerged that an 8-form-entry school had a reasonable prospect of viability by 1975–80 if viability meant 10–12 A-level subjects and minimum sixth form teaching groups of five.

These conclusions were specifically affected by demographic conditions in Inner London which are atypical, but those who are in touch with heads of comprehensive schools detect a consensus view which has grown to the point where 8- to 10-form-entry tends to be accepted pragmatically as an optimum size of school. Again, it is not possible here to dwell on the factors which have conditioned this consensus but

just as attitudes to the optimum size of comprehensive school have altered since 1965, so also there have been changes in many people's view about the smaller comprehensive school. To many it is acceptable if it is to have the whole ability range and an age range of 11–18.

The 'Inevitability' of Smaller Schools

It was inevitable also that the frustrations involved in attempting to go comprehensive with limited resources would lead to another look at the possibilities of small schools. Gradualism in the process of comprehensive re-organisation has brought many problems of co-existence (between comprehensives, as well as between comprehensives and grammar schools), but it must also be remarked that sometimes continued co-existence with academically stronger schools has allowed a small comprehensive of 5- or 6-form-entry with limited academic aims to achieve standing and success because of the good quality of its general achievements. If it were the only type of school available it could perhaps not be held to offer the necessary range of opportunities, but as part of a mixed pattern of comprehensives it can have a valuable role.

It is important consequently to judge the small comprehensive in its context, and this is the main reason why computation can never fully determine the viability of a small school. Such a school may in a rural area, or for Roman Catholics in an urban area of sparsely Catholic population, be inevitable. In these circumstances there is no possibility of offering a very wide range of opportunities unless by very generous staffing and equally generous accommodation and equipment. The small Roman Catholic school in an urban area would have the possibility of co-operation with county schools, but the rural school may well be remote from others and inevitably dependent upon its own resources. However, the gradualism which has determined the co-existence of selective and non-selective schools has also determined that there shall be a co-existence of schools of different sizes. By using existing premises, by amalgamations in split premises, by enlargements and by purpose building, some areas have developed a pattern of mixed sizes of comprehensive school which includes small as well as large schools. Most, though not all, authorities would avoid an overall pattern of small schools, particularly if they are 11–18 schools. Exceptions to this might be small schools serving favourable social areas which re-inforced their viability. However, it is in the less favoured areas that the social need for small schools arises, and the mixed patterns of size—usually determined by the size of existing buildings—may only by pure chance use its mixture in a really constructive way.

Small size is sometimes achieved by adopting a two-tier system with a transfer age at 13 or 14. The units within such a system can be smaller than all-through or 11–16 schools and their age range and purposes can be more compact. The system produces other problems which are not our concern here and, whatever the reason, has often figured in interim proposals in urban areas as a halfway house to final schemes. In some scattered areas it has an obvious geographical appeal in that it may involve reduced travelling by pupils up to the age of 14. Again, this situation may well provide small units in just those areas where the need for them is less urgent.

So, the small school exists in large numbers as part of a very mixed pattern of comprehensive development over the years; on the whole,

its existence is in conflict with the thinking (and often the planning) of the early comprehensive schools in the 1950s; often its existence is inevitable and a consequence of the educational home truth which says that we must develop our school system within our resources. There remain considerable doubts about the ultimate suitability of a small school to meet all the educational needs of an area, but in a mixed pattern, either of size or type, many small schools have a record of good achievement.

So obviously are small comprehensive schools an established part of our system that it seems odd that we should be examining their viability in this series of articles. Perhaps our main reason is that they tend to be inevitably, accidentally, or transitionally with us and only recently have they been held up to us as desirable in themselves. Even T. I. Davies (*Trends 23*), who appears to imply that a school of below 6-form-entry cannot really 'do its job in today's circumstances', states clearly that '. . . the small school is from its nature the better kind of school'. This statement would evoke a widespread sympathetic response from the general public. The small school is the one that everybody knows; it can be effectively 'overseen' from the head's room and the public has a strong traditional prejudice in favour of the head supervising the homely details of school life and conducting the day-to-day relations with staff and parents; it can be managed without converting gowned heads into super-managers.

The Problem of Management

In a sense we are the victims of a transitional stage in management practices in schools. The situation is in some ways reminiscent of the 1860s and 1870s when the transition was under way from the grammar school which met and worked for most purposes in one large room with the headmaster presiding overall as he pursued his own teaching function, to a system whereby classes met in separate rooms, coming together in the larger room or hall for certain formal purposes which were done collectively partly so as to enable the head to discharge his traditional function of supervision and admonition. The setting up of the endowed grammar schools in the 1870s and 1880s helped this transition along. Opinion then favoured classrooms and so facilitated the development of a broader subject curriculum. It was gratuitous good luck which produced so much school building in the 70s and 80s of the last century for the main part of both the secondary (in the pre-1944 sense) and the elementary systems found themselves with classrooms, i.e. with a structural organisation suiting their developing educational purpose, within a short period of years.

The large comprehensive schools have had no such transitional advantages. It is true that a good proportion of them, particularly those larger than 8-form-entry, have been established in purpose-built premises but many are centralised institutions in which the house or year system provides an efficient way of decentralising and delegating pastoral care, feeding and of undertaking many management tasks, but does not mitigate the feeling of great size. Though much has been learnt about delegation and new ways of management, the large school of 2,000+ remains something of an organisational enigma simply because we do not see any rapid or certain transition towards fundamentally new ways of laying out its premises or managing its day-to-day organisation. The NFER comprehensive research found

that the demands upon individual members of staff were heavier in large than in small schools and that a larger proportion of staff time goes on administrative work.

Dr Conway (*Trends 24*) touched upon this matter in a very telling way. He is a declared believer in the large school; in his case large means 8-form-entry. There are pragmatic reasons for believing that this is about the largest size which can be run on traditional organisational lines provided there is a generous practice of delegation. Dr Conway is explicit about the curricular advantages of a large school and, as his school contains a good balance of ability and consequently a reasonable number of academically abler pupils, one doubts whether he could attempt what he does in a much smaller school with a smaller staff. But his conclusions suggest that the overall impact of large size on a centralised site should cause us to think again. For instance, he says that the first two years, and possibly also the third, gain little from being in a large school, and that the need for the conditions of a large school begins in the fourth year. Dr Conway declares that what is needed is a system which breaks down size but gives a common policy and control in matters of curriculum, guidance and assessment. A new step forward in our practice of secondary organisation may well be the basic need, for large schools are with us and it is inconceivable that we could abandon the attempt to exploit their enormous curricular advantages.

We must not conceal from ourselves the problems involved both in running small comprehensive schools successfully and in the fact that they exist in fair numbers as part of our present system. Some but not all of these problems have emerged in this series of articles. It is worth emphasising that Edward Conway, though fully cognisant of problems of large and small size, regards the enlargement of his school as desirable and necessary, given that he was to educate not a secondary modern but a comprehensive intake and on the assumption that a really wide academic choice was to be available from the fourth year onwards. Similarly, as we have seen, T. I. Davies, though impressed by the natural quality of the small school, goes on to say, 'to do its job in today's circumstances it cannot afford to be too small'. On the whole, too, small proves to be less than 6-form-entry, a justification of Circular 10/65 which would receive a good deal of informed support.

The Logistical Problem

Perhaps the most effective argument used by Mr Davies emphasises that the logistic problem in relation to size is crucial in the fourth and fifth years as well as in the sixth form. 'This is worth saying because so many people make out that the whole question of the small school turns on the uneconomic character of sixth form provision; this perhaps without realising that to centralise this stage of provision means putting buses on the road that might just as well also pick up the pupils aged 13–16 and so bring about a real staff saving.' Mr Davies had already demonstrated the modest staffing cost of providing 12 A-level subjects in a 3-form-entry school and, of course, his argument gets further support from the continuing trend towards larger total A-level numbers, particularly in the popular subjects.

However, the firm trend of his article shows that if the general criteria are to be that a school should provide for its whole range from the least able (who need remedial attention) to its most able (who need full curricular choice) and to provide good opportunities everywhere, then

'. . . the dimensions of the 6-form-entry school are near critically minimal'.

There is no conflict between the model figures adopted by T. I. Davies and the actual situation described impressively by Celia Barker (*Trends 23*). She writes about three small comprehensive schools in a county which wanted to go comprehensive in its original postwar development plan in 1947. These three schools contain a third of the county's secondary population and they serve scattered areas where communications are difficult. The story is predictably one of some curricular limitations and occasional awkward choices of subject after the third year. But these are inevitably small schools, not small by design, and where they were preceded by grammar schools these also were very small and the familiar restrictions and awkward choices must have been present. Miss Barker refers to occasional lack of pace below the sixth form and to the recognition of more scholarly objectives in the sixth form, but these are familiar symptoms outside the small rural schools.

Elizabeth Halsall (*Trends 22*) was working on a theoretical model in her very powerful article. She showed what an extraordinarily varied subject provision can be achieved by careful timetabling in a 3-form-entry comprehensive school with a staffing ratio which is not at all generous. By some rotation of subjects most of the elements of a normal curriculum are available in the first three years though provision for remedial work is minimal and there is room neither for Latin nor for a second modern language in these years. In the fourth and fifth years a basic diet with additional options makes possible something like a familiar programme for this stage, and the difficulty is not so much in the number and spread of subjects as in making the subject knowledge of a small staff of teachers fit the range of specialist requirements involved. The sixth form programme achieves 11 A-level subjects including Latin but without a second modern language. As Dr Halsall admits, the arrangements are tight, allowing in the sixth form neither for O-level nor CSE retake classes nor for technical studies. Yet it is an impressive curriculum for so small a school and probably covers a large majority of the A-level demands of sixth formers.

Dr Halsall admits that in respect of its curriculum the small school has weaknesses, but like Mr Davies and Dr Conway she stresses its good qualities and, refusing to rely only upon her own remarkable demonstration of the curricular range which can be achieved, she gives the last word to the American researchers Barker and Gump. Writing about another school system, they claim that '. . . the negative relationship between institutional size and individual participation is deeply based and difficult, if not impossible, to avoid'. In general pupil participation and satisfaction with school are shown to be better in the small institution. Barker and Gump also believe that educational technology and easier transport may be able to free schools from past moulds for teachers, and resources can be moved or communicated to smaller units, whereas once we needed to move 'hundreds of bodies to a central spot'.

Conclusion

This may perhaps give us some clue in the future. New ways of planning the curriculum with an extensive use of educational tech-

nology may reduce the need for large schools if we can learn how to educate our pupils at all stages of the school in groups which contain wide ranges of ability and interest. So far, however, we are not very far along this path in spite of the considerable experience which has now been achieved with classes of mixed ability pupils under 14. Side by side with the growth of mixed ability teaching is developing a new attitude to the optimum breadth of the curriculum which sees as desirable the maintenance of a common curriculum for as long as possible—some would have it to 14, others to 16. Another view would have a large common element to 16 with a minimal optional element. All such developments and ideas about teaching groups and about simplified curricula obviously work out to the advantage of smaller schools. It would have to be conceded, of course, that the collective versatility of the small staff will not normally match that of a large one and it will not contain the finely adjusted range of specialisms to be found in a large school of any sort. But, on the whole, public interest in small comprehensive schools has been aroused at a time when curricular and organisational changes in schools are beginning to work, at least marginally, in their favour.

But the emphasis in the last sentence is upon the word 'beginning'. These are so far minority developments and for the present our existing small comprehensives, faced with current examination objectives and the demands which parents and others commonly make upon schools, remain at grips with the acute problems of matching their restricted resources against the spread of opportunity they wish to offer their pupils. Abnormally generous staffing can go a long way in helping them and the small rural comprehensives are often generously staffed. Small urban comprehensives, on the other hand, tend to be only marginally better staffed than larger schools in their area. We have absorbed these small schools into our maintained system of comprehensive education for special reasons: some are inevitable either because they are rural or denominational; others simply fit the premises available. Where they are isolated they may be successful either because they are generously staffed or because they are in pleasant places to which experienced teachers are attracted. In urban areas they may function well with a restricted role because of the 'mixed economy' within which they operate. So far there is little evidence that would encourage the desire for a larger system of small schools but equally there is nothing to suggest that an increasing number of small comprehensives cannot fit successfully into a system of mixed sizes. It really depends upon our concept of the objectives of individual schools and that is another story.

Does the teaching of language skills reflect their importance? In particular do we recognise that the skill of reading requires continuous development?

Effective Reading at Every Age

VERA SOUTHGATE

Vera Southgate is Lecturer in Curriculum Development in the Manchester University School of Education.

The reader of *Trends in Education*, like the reader of most other educational journals, probably approaches each new issue by first glancing down the list of contents or flipping over the pages in order to note which articles appear to be related to his own particular interests. Those articles he judges to be outside the boundaries of his immediate concern are likely to be either completely ignored or relegated to a low level of priority in his personal reading programme. Unless the reader in question is actively engaged in either infant education or remedial education, it is quite likely that the one word 'reading' in the title of the present article will be sufficient to convince him that the article is one which he can safely disregard. Even the inclusion of 'effective' and 'at every age' may fail to alert him to the fact that this subject is of direct relevance to him, regardless of the ages of pupils in whose education he is engaged, and almost irrespective of the subject in which he may specialise.

Yet, whatever positions we hold in the field of education, the development of language skills should be of vital concern to us. Without effective communication through language much of what we term education would be impossible. Our intake of information and ideas arises mainly from listening to people speaking, and from reading what others have written; while the expression and communication of our own questions, comments and thoughts, takes place most frequently through our use of the skills of reading and writing. Mastery of these four skills of literacy, namely listening, speaking, reading and writing, forms an essential basis for education. Although the initial use of at least the first of these two skills commences in infancy, it is only the rare adult who would dare to claim to have truly mastered the art of effectively utilising all of them.

We are all well aware of these deficiencies in standards of literacy. Without even considering what children of school age can or cannot do, we know that we ourselves, even as supposedly well-educated adults, do not always either read or listen effectively and often fail to express ourselves succinctly in either speech or writing. Despite this, we tend to skirt the issue, rarely bringing the total subject of literacy into the open, much less formulating far-reaching plans to improve standards.

I believe that skilled tuition in the arts of listening to, speaking, reading and writing our native language should form an integral part of the programme of every educational institution in the country. In Britain there has been a woeful neglect of such training. In teachers' courses of initial and in-service training only a modest amount of attention is given to written expression and even less to speech educa-

tion, while the skills of listening are almost entirely disregarded. Here our neglect is particularly depressing, especially as most people spend more time in listening to each other talking than they do in reading, and as our addiction to radio and television is increasing people's main intake of ideas and information comes from listening rather than from reading. While improved and extended programmes of training in all four of the language skills are sorely needed, here I want to consider mainly the skill of reading.

The Scope of Reading

Learning to read effectively is a long-term developmental process, and mastery of the various component skills is a task to be undertaken throughout the ages of compulsory schooling, continued in higher education and on into adult life. The strange anomaly is that the further up the educational ladder the student climbs, the more essential to his educational progress does mastery of efficient reading skills become, and the less likely is he to come in contact with those who have either the interest or the expertise to help him in this respect! What are the reading sub-skills and techniques which need to be mastered before the beginning reader can eventually become an efficient adult reader? The idea of speed reading will inevitably spring to many readers' minds at this point—a result of wide-spread advertising. Yet the ability to read certain kinds of printed materials rapidly is only one very small facet of reading efficiency.

To obtain detailed information about reading skills beyond the initial stages, as so little has been published in Britain, we need to turn to American sources. Although different reading experts in the USA have categorised the sub-skills of reading in slightly different ways, and used varying forms of terminology for them, they are generally grouped into three or four broad categories.

Harris,* for example, stated that the teacher of reading wants his pupils:

i. to be able to read;
ii. to use reading effectively as a learning tool;
iii. to enjoy and appreciate reading.

He then defined these three major areas of reading as developmental reading, functional reading and recreational reading, and he listed the many sub-skills of which each consists.

Developmental reading can be divided into two main areas of skills; skill in the mechanics of reading and skill in reading comprehension. The mechanics of reading include: certain skills of word recognition, among which are the acquisition of a large sight vocabulary; various strategies for deciphering unknown words by means of phonic analysis, structural analysis or contextual clues; and the development of different speeds of reading appropriate for different purposes and different reading materials.

Closely related to the word recognition skills is a wide range of skills related to reading comprehension. These include the acquisition of an extensive and accurate vocabulary; the ability to grasp the meaning of passages of increasing length and complexity, to understand the organization of the author's plan, to read for different purposes, such

* A. J. Harris *How to Increase Reading Ability* (New York, 1961).

as understanding the main ideas, remembering details or following directions accurately, and to evaluate what has been read.

As word recognition and comprehension each covers such a wide range of skills from the simple to the complex, it is clear that complete mastery of even this area, usually termed 'developmental reading', cannot be hoped for within the 10 or 11 years of statutory schooling. Moreover, if the actual teaching of these skills is thought of only in terms of the first two or three years of a child's school life, we shall only be flirting with the fringe of the subject.

Word recognition skills and comprehension skills represent the basic tools to be utilised in two broad types of reading, functional reading and recreational reading, each requiring competency in certain additional techniques. The special techniques required in functional reading are generally termed study skills. They include the ability to find information for specific purposes, to develop skills of comprehension such as reading maps or mathematical problems, and to use skimming techniques in the search for information.

The improvement of recreational reading necessitates the development of a liking for reading as a leisure-time activity, the ability to locate reading materials relating to one's interests and tastes, and the development of more varied and mature reading tastes.

If the foregoing outline of the breadth of the subject matter of 'reading' has convinced the reader that this is a subject requiring ever-increasing expert tuition at higher and higher educational levels, we might well ask two pertinent questions.

1. Why have we continued for so long to think of learning to read almost solely in terms of beginning reading skills?
2. What should now be done to remedy the situation?

Teaching Reading

Traditionally, in Britain, we have taken an extremely narrow view of the subject of reading. Even our interest in the limited field of beginning reading has been mostly centred on word recognition skills. We have grown to accept the view that, once a child has completed an infant reading scheme and is able to read simple books on his own, the bulk of the hard work is over. It is assumed that the child will then inevitably make progress towards higher levels of reading attainment almost automatically and without direct tuition, providing he is supplied with appropriate books and encouraged to read them. Our own experience and common sense, as well as the results of various reading surveys, for example, Ministry of Education (1950 and 1957), Wiseman (1964), Department of Education and Science (1966), Morris (1966) and Clark (1970), show that this is just not so. Nevertheless, the assumption that reading is a subject which mainly concerns infant teachers and teachers of older backward pupils is rarely challenged. Consequently, we do very little about extending reading tuition throughout junior and secondary schools and on into higher education. I should add that I am not meaning to imply that infant reading and remedial reading are unimportant but rather that the boundaries of our interest should be extended.

Our concentration on beginning reading is in direct contrast to the practices adopted in the USA, Canada and certain European countries where, not only is it fairly widely accepted that *all* teachers in training

should gain a certain amount of knowledge in this area of the curriculum, but the training itself is directed towards the whole array of sub-skills which contribute to effective adult reading. Reading instruction then forms an important part of the school curriculum; pupils at every grade level being taught more and more of the advanced reading skills. The manner in which this is carried out would frequently be considered too formal by British teachers, who are currently moving in the direction of informality. Nevertheless, there is an acceptance by American teachers of the need for continuous tuition, if the improvement of reading ability is to be achieved. In addition, most universities and colleges have not only departments for training teachers to teach reading, but also 'remedial departments' where students from any faculty, whose own levels of reading ability are inadequate for their studies, can receive expert tuition.

If we ask ourselves how our narrow view of learning to read has come about, a number of relevant pointers may be discerned. These are not put forward in any order of priority as they are interrelated in such a manner as to form a vicious circle, which makes it difficult to either isolate the most important factors or even to separate causes and effects.

Certainly our limited view of reading has to some extent been perpetuated by lecturers, writers, publishers and researchers. The majority of the lectures delivered to students and teachers, the articles written in the popular press and educational journals, the books published and the research undertaken in the field of reading are concerned with initial reading skills. We are so bombarded by articles, reports and publishers' blurbs about reading methods, media and materials related to beginning reading that it is hardly surprising if educationists have generally failed to look far beyond this restricted view of the subject matter.

Both reading testing and reading research illustrate our lack of appreciation of the breadth and importance of the subject. Our reading tests relate more often to younger children than to older pupils and adults. Most are survey types of test which, though useful for certain broad purposes, rarely give practical pointers to the teacher. In any event, reading tests are little used by British teachers, and seldom employed at the level of higher education. More diagnostic tests of reading are needed at every age level, as effective learning needs to be planned on the results of accurate diagnosis, designed to reveal gaps and deficiencies which can form the core of future tuition.

The money available for reading research has been meagre compared with the large sums devoted to other areas of the curriculum. If it is agreed that acceptable standards throughout education can only be based on effective mastery of the language skills, one would expect research in this area to head the list rather than trail at the tail. Even the small proportion of available resources devoted to reading research has usually been concerned with beginning reading and backward readers. We are further handicapped by lack of co-ordination in research in reading, with the result that some aspects are heavily researched while others, which might be of more benefit to the teacher and the learner, are neglected.

Failure to appreciate the breadth of the subject of reading can also be seen at local authority level. While there is no doubt that most LEAs

are concerned about reading standards, as Goodacre has recently reported,* it can be noted that once more interest is generally centred on mastery of initial skills. It is also noticeable that while many larger LEAs have advisers in subjects such as physical education, music, art or mathematics, few if any have reading advisers or consultants responsible for the total development of reading for all pupils at every age.

One additional factor adversely affecting the situation is that, in Britain, the subject of reading lacks status. There exists an educational convention, accepted also by the community at large, that the ability and status of a teacher or other educator is directly related to the age and ability of those for whom he carries responsibility. For example, the head of the science department in a secondary school is undoubtedly considered more important than the teacher in charge of backward readers, even though both might possess similar qualifications. The same principle holds good at the level of higher education. Some educationists would hotly deny this viewpoint but I am certain that most infant teachers and remedial teachers would support it.

As the achievements of children and students correlate highly with the abilities and expertise of their teachers and tutors, the availability of provision for studying reading at an advanced level in Britain should also be examined. While many universities in certain other countries have departments devoted to reading and the language arts, no British university has such a department and consequently no chair in reading exists. Indeed, at the majority of our universities reading is not considered to be an appropriate subject for study at a higher degree level, although opportunities do exist for submitting theses based on reading research as the total or partial requirement for higher degrees. In addition, at certain universities, reading is offered as a subject in various diploma courses for experienced teachers and other educators. As a result of our paucity of provision for advanced training in reading, we have insufficient knowledgeable people to act as lecturers, advisers, consultants, heads of reading centres and remedial departments. This fact, added to the other factors already mentioned, contributes to a situation in which there is no clearly recognisable promotion structure for those whose particular interests lie in the teaching of language skills. The lack of provision for advanced training also means that there are serious weaknesses in the areas of both initial and in-service training of teachers.

Examining the initial training of teachers, we find that in university departments of education where most graduates receive teacher training the study of language skills is rarely included, except for the few graduates intending to teach in primary schools. In colleges of education usually only those students expecting to teach in primary schools study reading, but the total course may be as short as eight hours and is unlikely to extend beyond 36 hours. Students planning to teach children older than nine frequently receive no training whatsoever in teaching reading, although we know that a large proportion of teachers do not eventually teach the ages of pupils on whom their training was concentrated.

Deficiencies in initial courses of teacher-training are reflected in the

* E. J. Goodacre *Provision for Reading*, University of Reading, School of Education (1971).

schools. When newly qualified teachers have only a minimum of knowledge and experience in teaching reading, it is hardly surprising that headteachers are continually complaining on this score. When few college lecturers or experienced teachers are knowledgeable about the development of the skills of literacy *after the initial stages*, it is to be expected that pupils of 8–15 rarely receive effective tuition in extending the skills of reading. Indeed, after the age of about eight reading rarely appears as a regular subject on the timetable for all pupils. It is thus inevitable that large numbers of secondary school pupils and students in higher education lack essential skills of literacy.

It should be added that both lecturers and teachers are fully aware of the need to increase their expertise in reading. There is an ever-growing demand, not only for courses at a practical level, but also for advanced courses leading to recognised qualifications.

And so the vicious circle goes round and round, while those most deeply concerned about reading standards are frustrated by their inability to break the circle and have to content themselves with nibbling at the edges of the problem.

Towards Effective Reading

The second question posed earlier concerns the action which might be taken to remedy a situation in which many pupils, students and adults lack the necessary skills for efficient reading. It should first be accepted that even if optimum provision were to be made, there would be inevitably have to be different target levels for people of different abilities and interests. Even so, improvements in standards could be effected at every level by the adoption of the following suggestions. Moreover, such a programme need not in any way approach the $460 million figure for expenditure on the current USA programme, *The Right to Read*!*

1. Departments of language arts should be established in the majority of universities. Such departments would offer advanced courses at diploma and higher degree level, thereby contributing to the further training of lecturers, advisers, consultants and experieced-teachers. These departments would also be concerned with unnder taking and co-ordinating research in reading and the other language skills, and with the dissemination of results.
2. In establishments for the training of teachers, lecturers in English, education and psychology should combine with tutor-librarians to form language departments, concerned with promoting an increase in students' own literacy standards, as well as providing them with the necessary knowledge and techniques for improving the standards of their future pupils.
3. In the initial training of teachers, *all* students should be required to undertake a minimum basic course of at least 40 hours study on teaching the language arts, in addition to one or two optional courses of similar length.
4. Extensive programmes of in-service training should be put into operation, not just for teachers of infants and older failing readers, but for teachers of normal classes in junior and secondary schools, and especially for many of those specialist teachers who have not

* A. L. Raygor in V. Southgate (Ed.) *Literacy at All Levels* (London, 1972).

previously considered it to be their function to extend their pupils' reading skills.

5. In schools, as well as in all establishments concerned with higher education, the extension of the skills of reading should be planned as a developmental programme extending to include all ages and abilities of children and students. All teachers and tutors should participate in the work of ensuring the continued improvement of these skills.
6. An increased programme of reading research, aimed particularly at the extension of reading skills beyond the initial stages, should be instigated. It should be accompanied by a large-scale project to develop diagnostic tests of reading covering the entire range of reading skills.

The implementation of these proposals would take us a long way towards the goal we should have in mind, that is, 'effective reading at every age'.

This article reviews the situation in the schools during the transitional period towards the adoption of metric units.

Metrication in the School Curriculum

EDITH BIGGS

Edith Biggs is Staff Inspector for Primary Mathematics.

Metrication in industry and commerce continues at a steady pace towards the original target date of 1975. Benefits have already been felt, especially since many industries took the opportunity afforded by the changeover to rationalize the unnecessarily wide range of items manufactured: but the changeover in the domestic sector, which affects all of us, is more difficult to forecast. Another cause of uncertainty has been America's position with regard to metrication.*

As far as education is concerned the change to metric units in the majority of schools (particularly in primary schools) is being achieved without fuss. Facilities for discussion and planning at teachers' centres exist in many parts of Britain. Teachers are therefore able to meet with LEA advisers and others to discuss how metric measures could be introduced with minimum expense and maximum efficiency.

But the present picture across England is very varied. The majority of local education authorities have made a per capita allowance for the purchase of metric equipment. Some LEAs as long ago as September 1969 requested teachers not to purchase any more non-metric equipment or books using imperial measures; others left individual schools to make their own decisions. Some teachers hesitate to introduce metric measures, others use metric units exclusively. Such hesitation is not surprising since a good deal of the metric equipment which was first on the market was of poor quality.

Through the good agency of the Metrication Board and the British Standards Institution a small committee (in which teachers and manufacturers of equipment were equally represented) was set up to make recommendations to the BSI for appropriate standards in a wide variety of measuring equipment. This equipment will bear a kite mark to denote quality and will probably be more expensive. But schools will certainly find it an advantage to possess one set of reliable equipment for reference.

---

* In 1968 a commission was set up by the US Government to study the effect of world metrication on the USA. Some of the officers of this commission visited the UK for consultation with the Metrication Board (and were interested to see teachers using metric measures at an in-service course). On July 30th, 1971, the report *A Metric America—A Decision Whose Time Has Come*, prepared by the National Bureau of Standards of the United States Department of Commerce, was published. The report recommended to Congress 'A systematic, nationally-co-ordinated changeover to the metric system of measurement over a 10-year period'. (Reference is made in the report to the experience of Britain and other countries now in a transitional period). If this recommendation is implemented such a decision from the USA will give a further impetus to the changeover in Britain.

Another problem which teachers face is created by the actual size of some of the metric units. For example, the metre is so large that there are few things a young child can measure in metres. On the other hand, the centimetre is so small that longer lengths, such as a child's own height, may be outside his understanding. But here the decimetre ($\frac{1}{10}$ metre) might well prove a convenient unit. In addition the kilogram is heavy and if accidentally dropped on a child's foot could cause far more damage than a pound weight! Again, the gram is very light (two drawing pins!) and many objects weighed in grams would involve numbers unduly large for young children.

But there are many experiences a young child requires before he is ready to measure with a standard unit. These include, in all aspects of measuring, non-quantitative comparison; experiences leading children to appreciate the need for equal units; the use of arbitrary units such as cups, hands or feet, marbles; experiences leading to an understanding of the need for a standard unit. Children who have followed a carefully planned course of this kind and who have used a wide variety of arbitrary units will be ready to use the major standard units while still at the infant stage. Their breadth of experience stands them in good stead. Centimetre or inch, litre or pint, kilogram or pound, square decimetre or square foot, what does it matter provided they understand the nature of measurement? There is an elegance and a simplicity about the metric system which need to be experienced before they can be fully appreciated. When teachers recognise this, it will help them to provide appropriate experiences for the children they teach. The range of units available is wide. The best known base units, metre and kilogram, have sub-units and multiple units any of which may be selected for use according to the purpose in hand. Consecutive sub-units and multiple units are related by the factor 10.

Units of area and volume are derived from length. Therefore the ratio of consecutive units of area, for example the square centimetre(cm^2) and square decimetre (dm^2) is $\frac{1}{100}$ (there are 100 square centimetres in a square decimetre). The corresponding ratio for consecutive units of volume, for example the cubic centimetre and cubic decimetre, is $\frac{1}{1000}$ (there are 1000 cubic centimetres in a cubic decimetre). The litre, frequently used when measuring the capacity of a container, has the same volume as one cubic decimetre. This gives a simple relation between the millilitre ($\frac{1}{1000}$ litre) and the cubic centimetre: these are equivalent. Once these relations have been discovered by pupils all calculations will be simplified.

It is important that present and future generations of children should use metric measures as their *first* standard units so that they 'think metric'. As Lord Ritchie-Calder wrote (Metrication: *Advancement of Science*, March 1970, p. 225) 'The difficulty is not in learning metric: it is in unlearning imperial'. Even those teachers who are most meticulous in giving experience in using metric measures to the children they teach continue to quote their own statistics in imperial units. These they will never forget. Children who have had sound early experiences of measurement and have learned to think metric will be curious when they first meet imperial measures at home and in shops, but they are not likely to be confused. When the matter is raised, there is no reason why children should not use common imperial as well as metric measures. The history of our imperial measures will fascinate them. This, then, is likely to be the pattern for young children. Older

children who began by using imperial measures require at least a term to become familiar with the metric measures which will be their predominant (but not exclusive) experience.

What effect will the adoption of the metric system of units in school have on written computation? A decimal/metric approach to mathematics will give children a consistent and sound foundation for all written calculations. Practical problems which arise with imperial units in everyday life will be of a relatively simple nature. Children should be able to solve such problems without difficulty once they have achieved proficiency in calculations using our decimal system. Of course, compound units will still exist in time and angle measures. As always, children will need to have a thorough knowledge of addition and subtraction facts, and will often be called upon to use those operations on numbers up to 100 while shopping.

To what extent will fractions be required in everyday life in a metric world? In Britain, as in continental countries, there is no doubt that halves and quarters of the major units will continue to be used. (On the continent it is customary to buy $2\frac{1}{4}$ metres of cloth but not 2·4 metres). In daily life children will have various opportunities of handling the fractions $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and sometimes $\frac{1}{3}$, $\frac{2}{3}$. They will not require at this stage to learn rules for operations on these simple fractions. But simultaneously they will use the fractions 1/10 and later 1/100. They will find, for example, that there are 10 ten centimetre (decimetre) lengths or 100 centimetres in a metre. Familiarity with the fractions 1/10 and 1/100 is required if children are to understand the shortened notation of decimal fractions.

At what stage, then, will children learn the notation of decimal fractions? Extensive experience with money and measures should enable teachers to introduce decimals at an earlier stage than the fourth year of the junior school (the current norm). Children will be familiar with price tags such as £1·25, £1·95 when buying records, for example. Such experiences will provide an excellent jumping off ground for the introduction of decimals. This should not prove at all difficult provided children understand the decimal system.

To understand that 0·1 can be used as an abbreviation for
1/10 (or 10/100)
and 0·01 for 1/100
0·11 for 1/10 + 1/100 or 10/100 + 1/100 or 11/100

requires a sound knowledge of equivalent fractions and of our number system. Methods developed to help children to understand our sophisticated number system, including the use of multibase blocks (or of squared paper as a substitute), now have an even more important place in the classroom. The fundamental significance of multiplying by the base number in different number systems needs to be explored and understood.

The number sequence can be written in various ways:

	1000	100	10	1
or	10^3	10^2	10	1
or	10^3	10^2	10^1	10^0 (following the pattern).

The earlier use of index notation should facilitate an understanding of the abbreviated metric units; in area, square centimetre as cm^2; in volume, cubic centimetre as cm^3.

The extension of this sequence for some older juniors and for secondary pupils as

10^3	10^2	10^1	10^0	10^{-1}	10^{-2}	....
1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	

will help to ensure an understanding of abbreviation of derived units such as speed in metres per second $\frac{m}{s}$ as $m\ s^{-1}$. Measuring experiences in all fields will reinforce the work in decimals and give further opportunities for practice.

The introduction of the international metric system (often referred to as the S I system) has caused some primary teachers to consider a problem in physics which was formerly postponed until much later. The problem: the difference between mass and weight, has always existed and is not a problem caused by the introduction of the metric system. It is comparatively easy to understand that weight is a force (the force of gravity). On the other hand, the measurement of mass is a difficult idea partly because mass cannot be measured directly. Mass is normally measured by comparing weights because mass is proportional to weight at any point. However, the actual numerical relationship depends on the position since the weight of an object varies slightly over the earth's surface—considerably in space. If this topic is raised by older juniors they should know that forces, including weight, are measured in newtons, that the mass of an object is measured in kilograms, and that there is an approximate relationship between the units of weight and mass. Some LEAs have decided to use the correct terminology: finding the mass of an object (instead of weighing an object) as soon as children are ready to use standard units. The large majority of teachers, however, have decided to postpone the issue of mass and weight unless and until older juniors raise the questions.

How will metrication affect secondary schools? At the secondary stage imperial and metric units have been in use for many years in science and mathematics. In physical education, athletes have now become accustomed to running lengths measured in metres instead of in yards! In geography and in metal and wood crafts imperial units have been used hitherto. The new international system comprises seven base units; some of these, and some of the derived units such as force, will be unfamiliar to us. Everyday temperature will be measured in degrees Celsius (for Centigrade—new in name only). Undoubtedly the quickest way for us all to become familiar with the new units is to use them as frequently as possible. Conversion should be avoided wherever possible. Where it is unavoidable a table of conversions or some form of calculator should be used. As we have seen with temperature, we do not make the effort if two systems are quoted simultaneously.

'The problems of the introduction of SI units at the secondary stage are varied. In science there will be a consequential change in the method of developing certain topics such as energy. Much of the apparatus will require recalibrating, but this could be an advantage if the process is undertaken by the pupils themselves. Familiar constants will have different values. In geography, too, familiar "yard-sticks" and concepts such as density of population, yields of crops and climatic statistics will have to be adjusted. The approximate length of the equator at 40,000 km or $40\ m \times 10^6$ should not be difficult—but

does Mount Everest sound less impressive at a height of 8,882 metres?'*

The home economics teacher, too, is in a dilemma. She is endeavouring to present her subject with as much relevance as possible to everyday living. At the same time, she is aware of what is happening in other subjects in the school and of the work which many pupils will have done in their primary schools. But the majority of manufacturers and retailers are not yet offering goods for sale in metric units; this makes teaching on shopping rather difficult. However, some home economics departments in schools are now working in metric quantities and LEAs are providing funds for the purchase of metric equipment.

At present there is not much equipment on the market which is considered suitable for domestic use. A metrication working party has been set up by the UK Federation in Home Economics. This working party has already made recommendations to BSI about domestic equipment.

Recipe books are being revised and publishers have been advised not to show conversions. There should be little difficulty as far as needlework is concerned since commercial paper patterns have been printed with metric measures for some time.

'The craft subjects, wood and metal work, face a different problem. The cost of providing metric replacements for all existing equipment, assuming that these were available, would certainly be prohibitive. In many instances, simple conversion devices could be used until machines can be adapted, or replaced when they become obsolescent. Since different sectors of industry have separate timing for metrication, changes will need to be carefully phased in craft subjects if the maximum educational advantage is to be gained from the changeover. In further education, too, changes will need to keep in step with the switch to metrication in the various industries. All students will in future require a working knowledge of SI units of length, volume, area, mass and force, as well as of imperial units. Some students will need to work in the new derived units, such as speed in metres per second. The Industrial Training Boards are aware of this, and technical colleges are helping to mount short courses for recent students.'*

What of students in colleges of education? They, too, require some extensive experience in the use of metric measures if they are to gain a confident knowledge and appreciation of the measures. Such experience is as important for intending secondary teachers as for primary teachers since *all* pupils will learn faster from first hand experience with metric units in realistic situations.

What is the position of metrication as far as public examinations are concerned? 'The attitude of the boards is one of flexibility. The arrangements are therefore subject to alteration as needs require'.* Most boards plan to offer questions in SI and imperial units for as long as is necessary. At the present time some of the examination boards plan to use SI units exclusively (i) in mathematics and science, from 1972 onwards; (ii) in subjects such as wood and metal crafts and engineering drawing, from 1975 onwards.

How will a prolonged transitional period in the changeover to metric units affect publishers? Publishers have been steadily producing new

* 'Metrication' in *Advancement of Science*, March 1970.

and revised topic and textbooks which use metric measures exclusively. Some head teachers are pressing for imperial as well as metric measures to be included in school books. Publishers are therefore anxious lest their action has been precipitate. To me personally, however, there appear to be two reasons why new and revised books should include metric measures only: first, because written practice in the four operations using imperial measures is no longer necessary; secondly, if a teacher should want to give children such practice, the school will undoubtedly possess old books from which such practice could be given. New schools purchasing new books and equipment could no doubt effect an exchange of imperial and metric materials with established schools. The present policy of the Publishers' Association to concentrate on metric editions therefore seems reasonable.

Finally, we and the pupils we teach, will appreciate the convenience and elegance of the international system of weights and measures only when we have thoroughly accustomed ourselves, by repeated and extensive first hand experience to think metric. Many of our problems will then no longer exist.

To make suitable educational provision for handicapped children specialised services are needed to supplement the work of ordinary schools. This article discusses the future development of these services.

The Future of Special Education

H. W. BARRETT

H. W. Barrett is Chief Education Officer for the Isle of Wight.

It is the task of education to be sensitive to the needs of each child while studying and nourishing his potential. The variation in children is infinite: at one extreme lie those handicapped by evident disability of mind or body, or by disadvantage of background. There is no dividing line and the resources of ordinary schools have been commonly assumed to be adequate to provide for the needs of all but a small minority.

How ill-founded this assumption was has been brought home progressively by experience as well as through a recent penetrating major Research Survey of all children aged between nine and eleven living in the Isle of Wight.* It is this realisation which inspires and justifies a form of reorganisation designed to increase the attention that can be given to the individual child according to the needs of his nature, capacities and stage of development. It is in this sense and this sense only that the word 'comprehensive' is to be understood—the better comprehending, in both uses of the word, of each child's needs, problems and possibilities.

It is the task of education to nourish every effort to enlarge this kind of comprehension and comprehensiveness, to bring into the scope of the ordinary schools as early as possible as many as possible of those who, without very special attention, would not achieve this; and to make appropriate and successful educational provision for those whose disabilities—at least within our present state of knowledge—demand a modified school environment.

Two courses of action in primary and secondary schools emerge. One is in the direction of increasing the capacity of ordinary schools to recognise early and to treat successfully a wide range of learning difficulties. The other, with which this paper is concerned, is the development of the more specialised educational services, including those hitherto administered by local health and hospital authorities.

Findings of the Survey

In 1907 a Circular of the Board of Education set out the objective as 'adapting and modifying the system of education to the needs and capacities of the child, securing the early detection of unsuspected defects, checking incipient maladies at their onset and furnishing the facts which will guide education authorities in relation to physical and mental development during school life.' It is doubtful whether the author of this statement realised how elusive this target would prove to be. Now, many years later, the Isle of Wight Survey (the findings of

* *Education, Health and Behaviour*—Rutter, Tizard and Whitmore, 1970.

which were reviewed in *Trends 23*) has measured how far we are from its realisation.

The survey establishes the prevalence of handicap in children aged between nine and eleven resident on the island and measures the effect of these handicaps on the educational, social and personal development of children. The revelation is not that there is a wide area of relative failure at school, nor that individual children suffer from disadvantages; it is that a large part of school failure derives from individual and specific handicaps which, if recognised in time, could have been removed or reduced. 'Among 2,199 children aged nine to eleven years living on the Isle of Wight, there were 354 with some form of handicap. Thus, considering only the four principal types of handicap studied, 161 children in every thousand, or approximately one child in every six, of those in the middle years of their schooling, were found to have a chronic or recurrent handicap.' These figures indicate an incidence far higher than had been supposed. Previous statistics, including those published by the Department of Education and Science and reproduced in the Plowden report, have been based on identified handicaps. We have now for the first time the true measure of the problem based on deep and penetrating enquiry.

'Although social circumstances on the island are fairly similar to those in England and Wales as a whole, the worst kind of slum conditions and the problems of social disorganisation seen in parts of most major cities are not represented on the Isle of Wight.' For this reason, and since not all handicaps were studied, the rates are likely to be a minimal measure of general prevalence. Although no true comparison between the survey figures and those shown in Table 17 of the Plowden report can be made, it is interesting to note that whereas for blind and partially-sighted, deaf and hearing impaired children, whose handicaps are fairly easily detected, there is some correspondence between the ratio, no such relationship exists for the maladjusted. Thus (prevalence per 10,000):

	Plowden	Survey
Blind:	1·7	2·1
Partially Sighted:	3·0	1·4
Deaf: ⎫	4·2	11·0
Partially Hearing: ⎭	4·2	11·0
Maladjusted (severe):	10·9	220·0

In making their findings known, the survey team have been at pains to emphasise the need for early recognition of a handicap, and it is clear that there is now the strongest possible evidence demanding that the main weight of our resources should be concentrated on children of early school age and pre-school age.

The Background

Special education has long since been rescued from the position it once occupied as being the proper use for the oldest and most depressing buildings and the province of the least gifted teachers. It is an honoured part of the profession requiring specialist qualifications and attracting some of the ablest teachers. It is no longer an exercise in social compassion (which should inform all work in education) but a field of educational work and research which has carried understanding of development and the learning process far, to the benefit of education as a whole.

Services for handicapped children in the Isle of Wight are, according to the survey, 'better than or at least as good as those found in other parts of the country'. They include a day school providing 120 places for children with special learning difficulties, a small school for children with severe motor disabilities, and a visiting service for severely handicapped children who need to be taught in their own homes. Some children attend residential schools in the mainland.

A reappraisal of services that has now been in progress for several years has now been given added impetus by the results of the survey. In the past our approach has been fragmented by an over-rigid classification of handicaps. In fact these overlap widely. Physically handicapped children are likely to have intellectual difficulty, either proceeding from a common cause or occasioned by the limitations of experience imposed by their physical condition. The maladjusted will, in most cases, though not all, suffer also from mental backwardness or educational retardation, and so on. Many children are multiply handicapped. The modern trend is towards containing as many children as possible within ordinary schools—or in close association with them—by improving the facilities and increasing the resources of these schools; and where special schools are necessary, towards dealing with the various handicapping conditions by associating them and concentrating resources.

Among the most important conclusions of the survey were the need for the closest consideration of all the professional disciplines involved and the identification of children with disabilities at the earliest possible age.

In the past, 'ascertainment' has come to be regarded as a formal and almost irrevocable procedure; in the future it must become a continuous process, embracing the views of all who are concerned with the education and treatment of handicapped children. Early 'ascertainment'—assessment would be a better term—should be inseparable from treatment, and might best be carried out in some form of educational provision for handicapped children under the age of five. The case for early education, already strong, is thus powerfully reinforced; by making nursery education available for children with disabilities, an excellent opportunity is afforded for examining and observing children carefully over a period of time, so that a more accurate diagnosis of handicap and an assessment of educational need may be decided and a programme of treatment begun. Indeed, many nursery classes for handicapped children are already being called 'diagnostic' units. Yet a word of caution is necessary: effective assessment calls for a close partnership between doctor, psychologist, social worker and other specialists who may be required. Without this essential feature, the term 'diagnostic' cannot properly be applied.

Apart from providing special education, nursery schools or classes for handicapped children perform another function—they provide a natural meeting place where anxious parents can learn to understand the needs of their children, become involved in their education, and be taken into partnership when decisions about their child's future have to be taken.

The challenge confronting us is considerable. It might be of general interest to see how one small authority plans to meet it.

Provision in Special Schools

There will always be some children who need, for at least part of their school lives, the specialised services and teaching that only a special school can provide. Such, for example, are those whose mental or physical disability is so severe that they are unlikely ever to be able to lead fully independent lives. For these, special schools already exist in the Isle of Wight. What is important is that there should be an increasingly close relationship between the various specialised services to see that a pupil's needs, which are never static, are constantly reviewed, and that he can be moved from one educational setting to another should this prove desirable. To further this end in the Isle of Wight, we propose to make, on the site of an existing special school, a complex of provision for a wide variety of children with different disabilities. Mentally handicapped children in need of medical care or physiotherapy, will be able to receive them alongside others whose major handicap is a physical one; costly practical provision and therapeutic services can thus be shared. All children will be able to benefit from the wider facilities and from the resources of a large and varied staff.

It was formerly believed that young children with a developmental disorder or a severe learning difficulty would benefit from being placed in ordinary infants schools till the age of seven. This has not proved possible for all handicapped children, some of whom have proved too difficult to contain in ordinary schools while others, too seriously handicapped to be placed there, have lost the benefit of early education. In future, additional specialised nursery provision will be made to meet the needs of these children. It will create a centre where the full resources of specialist help and diagnosis will be cooperatively deployed.

For those about to leave school it is proposed to create a 'Youth Workshop', where work training and experience can act as a bridge to later employment for any children in the complex who are thought to need it.

To complete the needs of this complex two further projects will be necessary.

Children at Risk

With the provision outlined above, the Island will be equipped to deal with those more serious handicaps with which a small population of children are afflicted. These apart, there is a much larger number of children with less obvious handicaps who form the main part of that large proportion discovered by the survey as under-achievers or educationally retarded. These include children with minor speech, visual or hearing difficulties or those of deprived social background; those, in short, whose educational future is at risk. Additionally, there are those children whose parents may be handicapped who would benefit from contact with other children and with adults. Help given at the earliest stage before failure has become a habit will be far more effective than remedial work at a later stage.

Universal nursery education will be the ultimate answer but this is yet some way off. What is proposed for these children is the establishment of six nursery units strategically placed, each attached to a primary school and therefore not far removed from a child's own home. The identification of these children will involve the closest collaboration

with medical officers, practitioners and specialists and with health visitors and with the officers of the social services department.

Hearing—Impaired Children

Deafness is the commonest cause of avoidable school failure and far too often remains unsuspected and undisclosed. It disguises itself readily as dullness or inattention; the sufferer has no means of knowing that what he hears is not at the normal level. At the same time it is a handicap which, properly diagnosed and treated, can, except in severe cases, be overcome sufficiently to allow normal participation in the ordinary schools. Only constant vigilance by classroom teachers and a qualified teacher of the deaf can ensure that it is spotted and that the measures necessary to reduce its effect are systematic and effective. It is a handicap in which, above all, early recognition and help are essential in order that language, which is the indispensable precondition of learning, can be adequately established.

Progress in this work is at present heavily disadvantaged through lack of pre-school provision. Present figures indicate that in the Island there are up to four children in the pre-school age range in any one year in urgent need of this provision and others who would benefit from skilled assistance on an occasional or part-time basis. A unit is proposed for an age-range of two to six years, centrally established in conjunction with a normal nursery class. This latter condition is essential to give the hearing impaired children experience of communicating with normally hearing children. Such a unit would give a good chance of preparing most of its children to take their place in an ordinary school with a prospect of normal progress. The alternative to this is the expensive one of sending them away to specialist schools. This may remain necessary in a few cases but the number can undoubtedly be reduced.

The unit will be under the control of a qualified teacher of the deaf and will be associated with parent guidance work which at present constitutes only a single instead of a full dual pre-school service.

Provision for the Maladjusted

Maladjustment, commonly linked with school failure, and often a precursor of delinquency, is one of the most serious problems confronting education authorities and the handicap which is least adequately covered by good residential schools. The waiting list for such schools as there are is always long. The survey revealed a much larger rate of serious disturbance than hitherto supposed and found that only one-third of the cases were receiving or had received any form of treatment. Undoubtedly, the most effective attack on this problem is the earliest possible recognition of symptoms that a child is not deriving satisfaction from normal success and normal patterns of behaviour. Most commonly it is associated with serious defects in home background. Close study of the needs and problems of individual children in the schools, and the application of greater resources to social work, under the social services committee, will have their effect but there will remain cases where relief from adverse home conditions is essential to create any chance of personal and educational development of a normal kind.

The child guidance clinic is of central importance in this field. The great majority of referrals are from schools where evidence of need is

most early and most readily discernible. Teachers are being systematically helped to recognise symptoms of trouble by the educational psychologist and she, together with the school medical officers, is the channel of referral.

The clinic, however, is understaffed to diagnose and treat the cases referred to it, quite apart from those not yet recognised as being in need of help. The Underwood report considered that the total establishment under an LEA of this size for child guidance clinic and other purposes should be at least one psychiatrist, two educational psychologists and three psychiatric social workers. The need to increase our resources in this respect is urgent.

However good the diagnostic and early treatment service is, there will be cases, normally of adolescents, where normal development and educational progress and success will be possible only by separation from the crippling effects of a bad environment. Resources in this area are pitiably small both of residential psychiatric help and of places in good residential schools. More than once we have been in the position of recognising that nothing can be done until trouble with the police leads through the courts to the remand home and approved schools. Two long-term approaches are:

a. Discussion with the regional hospital board to explore the possibilities of a local or regional psychiatric hospital or ward for adolescents.
b. A study of the possibility of setting up under this authority a good residential school for maladjusted children. The need for places by other authorities would strengthen the justification and help to make it reasonably economical.

In the meantime, it is proposed that a hostel for local cases should be established.

Other Forms of Handicap

No reference has so far been made to certain other handicaps. Of these, blindness and partial sightedness require special reference. At the present time we have five children at residential schools; at the moment we do not plan to provide locally the specialised education these children need, although every effort should continue to be made to increase our capacity to retain the less severe cases of partial sightedness either in our ordinary schools or special schools. This depends, among other things, on the availability of systematic ophthalmic supervision.

Physical delicacy and epilepsy are increasingly thought of as conditions which ought to be more generally contained within ordinary or local special schools. In severe cases, however, this is not practicable and a continued need for places in special residential or hospital schools must be contemplated.

Speech defects constitute a handicap which is most commonly associated with other conditions and the speech therapists have heavy commitments in our special schools. In varying degrees of seriousness it is also a single handicap. In most cases this can be met by the combined efforts of speech therapists and teachers in the ordinary schools but in severe cases or where the condition has a deep-seated psychological cause residential special school may be necessary.

The Concept of Inclusiveness

Behind all forms of special provision must be a consistent and planned endeavour to normalise—to increase the capacity of ordinary schools to retain children in a normal school environment and to open personal and educational success to those with difficulties which threaten to separate them from the main stream of life.

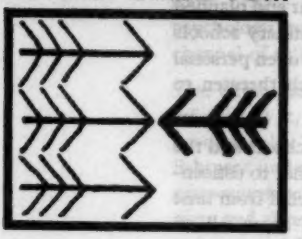
Success will depend on physical conditions within the schools and the size of classes; it will depend on the freedom of the teacher to concentrate attention on the children and their needs, and on relief from time and energy consuming ancillary tasks; it will depend above all on effective contact with parents and knowledge of home conditions. This is often most difficult in cases of greatest need.

The school welfare service is the means of normal traffic between home and school. Its influence on both sides in securing harmony and understanding would be difficult to overstate. The directness of association with school staffs is much facilitated by our reorganised pattern of schools; with an establishment of four assistant officers continuity from primary to high school in each of the four areas will be assured.

The scope of the work of these officers is increasingly widening; it is part of the 'normalising' process that children who are the subject of their contacts should not be regarded as 'cases'. At the same time, their work as an extension of the schools will give them special insight into problems which will overlap with the work of the social services department with which they will form the normal means of contact and collaboration.

It is important that these officers, whose work is vital to the task of the schools but whose training and conditions of service have never been properly established, should now enjoy the recognition and level of reward which their services justify.

IN RESPONSE TO...



In the January issue of Trends in Education David Layton, a lecturer in education at the University of Leeds, wrote Science as General Education. *Colin Selby, Science Adviser at the Schools Council, responds.*

Trends in the Teaching of Science and Technology

In 1828 in his third edition of *Elements of Physics* Neil Arnott M.D. pointed out that 'progress was more rapid at present than ever' and he also drew attention to 'the mutual dependence of the departments of knowledge'. Later in the century, Mr. W. E. Foster, speaking to his constituents in Bradford on the occasion of the opening of the Mechanics' Institute remarked that 'there may be also a feeling that we ought to know something of the daily facts of life and the rudiments of science. There again, I speak from a sense of my own want, and I have often thought how much more useful I might have been—at any rate how much stronger I might have been—if I had had given to me the scientific education such as I think we may now hope that our children will attain.'

In 1971 it is still possible for a hopefully decreasing minority of children to leave school having studied little of the processes and broad principles of science. If the Nuffield 'O' level materials represent the end of an era, (*Trends No. 25*), they stand also at the beginning of a new development. They have begun changes in teaching styles, teacher/pupil relationships, assessment techniques, and have meant a more personal involvement in science studies through practical work for a growing number of students.

But these materials, designed for the more able pupils, have been followed by curriculum innovation for pupils of many more ages and stages in development. If it is true that the Nuffield 'O' level material lack major references to technology and of relevance to life in contemporary society it is also true that curriculum materials published recently or still in the trial stages are bringing a knowledge of technology and of the applications of science to social problems increasingly into the curriculum of our schools.

There are at least three major trends in curriculum organisation and content for pupils over the age of eleven years which may be identified. *First*, there is the trend towards an integration of studies; the co-ordinated planning by a group of teachers of previously isolated subject studies, for the benefit of a group of children. This co-ordination may involve an integration of biology, chemistry and physics as is taking place in the Nuffield Combined Science materials, the Nuffield Secondary Science materials and the Schools Council Integrated Science Project materials. In all three cases, and particularly in the last two mentioned, relevance to pupils' own experiences and the development of their technological and social awareness are given prominence; indeed, Integrated Science lays considerable stress on science as a search for patterns and their uses in problem solving. Science as a unified study related to the search for patterns in connection with problem solving can begin for example with 'Science 5/13'. The 'wholeness' of knowledge is also approached in materials such as Nuffield Junior Science and in the Environmental Studies project.

Secondly, there is the trend towards the placing of science in its context; the attempt to enable children and young people to see the uses of science in society. There are elements of this trend to be seen in the Nuffield 'A' level Science materials. The resource materials developed by the Schools Council General Studies project to be published this year include work on pollution, population control and the conservation of resources. The Nuffield Secondary Science materials contain work on food preservation, human energy output, genetics and the nature and use of

materials such as concrete among many other topics chosen for their relevance to the pupil's life and interests. The Schools Council Integrated Science Project has broadened the study of science to include the involvement of pupils in decision making based on an analysis of available data in studies such as '*The Gatwick Airport Story*' and '*The Polythene Story*'.

Thirdly, there is a trend towards the inclusion of a study of technology in the curriculum. There are two main components here, in one, case studies in history, geography and art for instance may involve references to the part played by technology in the development of human societies and moral education may also be involved since value judgements are required about the use of technology; whether it is a good or bad influence in human society. Project Technology has developed history packs such as 'The Power of Steam' and 'The Age of Iron and Steel'. This project is also developing work on 'Technology and Man' under the headings 'Communication', 'Environment' and 'Energy'.

The other main strand is the encouragement of technological activities such as those developed by Project Technology and the Design and Craft Education Project. A number of schools have become well known for their technological studies sometimes linked with community service and often involving a high degree of creative design. Through involvement with projects like these many more students, both boys and girls, are having a chance to do some technology in school. A visit to any one of an increasing number of Science Fairs being held up and down the country will show the wide range of activities which are going on at this level whether as part of an out of school activity or during normal curriculum time.

All these three trends are in their early stages but they are clearly recognisable and in some areas developments have gone a long way. Help is being given to teachers by science and technology centres such as those described in Schools Council working paper No. 38 *Support for School Science and Technology*, and in many other teachers' centres up and down the country.

The Standing Conference on School Science and Technology is a national body with representatives from industry, professional associations, and educational establishments. This body has a national liaison officer and will it is hoped mobilise a wide range of help and advice to teachers locally. Among the increasing range of resource materials for teachers are the 'Decision Packs' produced at the Bath Technological University and funded by Shell/B.P. The first of these gives a collection of the actual evidence used to reach a decision on the location of a new oil refinery. Students may compare their decision, based on these materials, with those in fact reached by the industrialists.

All these trends are making it much more likely that the majority of future citizens will be able to have an informed opinion about the uses of technology, and about such matters as pollution, population control and the management of resources of all kinds. Indeed, the Nuffield O-level materials will remain part of these developments, the more so since they are now being revised in the light of the experience of the last few years. This has been a brief summary of some of the developments which David Layton (*Trends 25*) suggested should now be happening. Further details can be obtained from the Information Centre, Schools Council, 160 Great Portland Street, London W1N 6LL. Reference may also be made to the Project Profiles and Index produced by Schools Council, copies of which have been sent free to all local education authorities, H.M.Is, teachers' centres, colleges, departments and institutes of education.

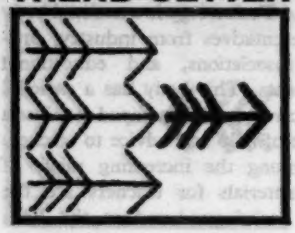
Published in March

New Thinking in School Geography

Education Pamphlet No. 59
Price 68p.

Geography teaching is in a period of rapid change.
Which way should it go?

TREND-SETTER



Primary School Management

School management courses have tended to concentrate on the secondary teacher, and the reasons for this can be appreciated readily in the light of reorganisation and the increasing size of schools. The primary school, however, despite its different nature and generally smaller size, raises a whole series of special organisational problems which could form the basis for intensive study and discussion in an administration course for primary headteachers.

With this in mind Keele University has devised a course in co-operation with the local LEAs and colleges of education. The first residential unit of the course took place in March 1971. In this unit a number of keynote lectures were given by visiting speakers on a developing theme in relation to primary education; their lectures covered aims and objectives, child development, the curriculum, school design, learning organisation and school organisation. The object of these lectures was to feed ideas for consideration in discussion groups.

Four sessions had been allocated for these groups to examine the problems of primary school organisation and administration on a broad front. Groups were formed on the basis of interests indicated by teachers on their original application forms. Eight pairs of topics had been listed on the form. In each case, topic (a) was the main subject and topic (b) a possible subsidiary subject, not necessarily related to the first one. For example, one of the pairs suggested was:—

(a) Parents, managers and the community.
(b) Team teaching.

Six discussion groups were set up and each given four questions for consideration based on the pairs of topics. To take the previous example the four questions given on that pair of topics were:

(1) What should be the role of the school managers?
(2) How far should parents be allowed free access to the school?
(3) What do you understand by the term 'team teaching'?
(4) What are the advantages and disadvantages of team teaching in the primary school?

It was pointed out to groups that these questions were only guide lines and that they were free to range within the topics or consider in greater detail points raised by the lectures.

The range of membership in each of the groups was wide, taking in teachers from different authorities, heads of urban and rural schools, heads of new and old schools, and junior and infant headteachers. One particular aspect of this grouping was that it gave the opportunity for members to exchange ideas and experience across local authority boundaries. Reporting sessions were set aside towards the end of the week and an elected reporter from each group highlighted for the course members as a whole, some of the main issues discussed. These reports were eventually collated by the Institute of Education and duplicated for course members and the contributing LEAs as an initial indication of the ground covered during the study in breadth at the beginning of the course.

Unlike secondary school management courses which often focus specifically around clearly recognisable basic issues such as curriculum notation and the writing of the school timetable, it was felt that perhaps there were no such clear-cut issues for headteachers from a wide variety of primary schools. An open-ended approach was therefore adopted for stage two of the course and regionally based groups were asked to choose a problem of primary school management for study in

depth, during the summer term. They were asked to approach problems with a view to presenting the issues raised through simulation exercises and operational role-playing games. There was a certain hesitancy about requesting presentation in this form because it was not clear whether headteachers of considerable experience would be willing or indeed have the time to work in this way. There was also no material of this type in the primary field to be used for guidance. However, during the first residential unit the course members were introduced to the techniques and shown the way in which material had been prepared for use in the secondary field.

The local groups were left to arrange the timing and venue of their meetings. In practice they met in one another's schools deriving benefit from these visits in themselves because they could now see one another's problems in context. It was of considerable interest to see the topics which the headteachers chose as being the organisational and administrative problems of particular relevance. The topics selected included such issues as setting up French in the primary school; a new headteacher and a new school; taking over and making changes; the teacher and an awareness of the law.

A whole day meeting for local groups was called at the university in July to allow the course tutors to check on the progress of the groups. On this day each group leader gave to the course a brief resumé of its chosen subject area and work to date. The meeting also gave an opportunity to arrange for the duplication of material and audio-visual aid requirements for the presentation of work in the second residential unit. It was at this point that the success of this local group depth study became apparent. The volume of work produced by each group was considerable and the quality high.

The final residential section of the course in September commenced with a keynote lecture which surveyed aspects of social science research in relation to the role of the headteacher. Following this, the course spent eight sessions with each local group examining the reports and working through some of the exercises of each of the other groups. For example, using a series of material presented as letters from a headmaster's in-tray, the teacher and the awareness of the law group highlighted issues for discussion requiring immediate action or the preparation of written replies to letters on routine administration *vis à vis* the LEA, timetabling, ancillaries and auxiliaries in schools, parents in schools, out of school activities, accidents to pupils, and punishment. The items were backed by a detailed review of relevant Acts of Parliament, LEA regulations and case law.

The new head and new school group illustrated the problem posed with slides, prepared a detailed guide to the problem in booklet form and organised two sets of case studies. The taking over group prepared a wealth of material in the form of studies using in-tray items, synchronised sound-tape-slide presentations and tape recordings. In addition, role-playing studies were prepared so that participants could simulate interviews and discussions. All the studies were set in the context of a school the profile of which was set out in detail in the booklet.

The 'Setting up French' group had visited schools where primary French was being taught, examined the courses available in detail and summarised the relevant points for use by the study groups. Given this context, groups had to choose a course, plan the organisation in the school, and appoint a staff member. After viewing a 16mm film of an organised primary school visit to France, the value of such visits was discussed.

It was obvious that the hour and a half period spent on each group's work was insufficient to examine the volume of material in great depth or to work through in detail all of the exercises devised. However, each group's work was studied seven times and different groups therefore examined different aspects of the reports and worked through a variety of exercises. This approach enabled each local group to have its work examined in breadth and as a result many of the groups saw scope for the improvement of some of their exercises.

One particularly rewarding aspect of this local group work was that each group specifically requested a copy of the report and exercises from all the other groups as they had decided to continue meeting informally after the course had finished to work through in detail all the material from other groups.

The final exercise carried out in this second residential unit was based upon a study paper setting out in careful detail a planning exercise for the building of a small new primary school with all the regulations and restraints which must be taken into consideration. A whole day was given for groups to devise their plans and sketches and these were presented for final comment and discussion by the whole course. This proved a most successful concluding exercise. The headteachers were made much more aware of the difficulties and restrictions which face planners and architects when designing school buildings, but on the other hand many of the heads brought refreshingly creative ideas to school planning and ideas which are worthy of wider consideration. The course closed with a lecture reviewing primary education today and discussing some possible developments for the future.

Though the course is over, all the local groups of headteachers have decided to continue to meet informally. This should produce a further beneficial exchange of views and ideas. Many of the headteachers are also going to be involved, through their LEAs and teachers' centres, in using their studies and running courses for other teachers in their areas. The large quantity of material which the local groups produced in their reports and exercises, with careful editing, can provide a basis for further work on other in-service primary courses or for use with students in initial training, in an area, namely primary school management, where there is little or no material at present available.

Philip Boden, Department of Education, and Roland Seymour, Institute of Education, University of Keele.

Teachers and Industry

Many prospective science teachers enter colleges of education with no direct experience of industry (and often with no other background experience than the school they have just left). This lack of background experience is a disadvantage for any student teacher but more so for the science teachers who are often called upon to teach the science of processes which they have only read about.

Industrialists and educationalists have advocated, for many years now, a closer connection between teachers and teachers in training with industry; the course outlined here was a successful endeavour to bridge the gap.

Money is available in the colleges for the provision of visits to places of educational interest and the biologists (and other departments) have long used these resources for the provision of field studies. The student teacher of physical science has however been relegated to the position of a day tripper making 'whistle stop' visits to local industries with much the same effect as a tourist trying to 'do' Europe in five days.

We felt that at least a week's visit was needed for the students to benefit at all from seeing a single industry. An approach was made to the Agricultural Division of ICI Billingham concerning the feasibility of working a week at their plant and the management were exceptionally co-operative and interested in the project. At a preliminary meeting the objectives of such a course were formulated together with a rough programme. The objective was to enable student teachers to gain a better understanding of the chemical industry and the practical application of their teaching subject in an industrial research and development environment. If we could achieve this objective we felt that we could be helping to produce a better informed teacher who would be more able to teach his pupils about the processes and techniques involved in large scale production.

The choice of the industry was made

after reading the literature on the processes used. This was done about a year before the proposed start of the course.

Approximately a week before the industrial course started, a representative of the firm visited the college and outlined the general industrial pattern. The actual working week was designed by the course supervisor employed by the industry.

Each day the students collected rough notes, graphs, handouts, and experimental data and these were written into a comprehensive report at the end of the week. These reports were usually so lengthy and packed with information that they were not normally completed for a number of weeks.

Each day started with a meeting of each student and his individual supervisor, who handed out the programme or project of work for the day and at the end of the day the student reported back to this same person who was then able to answer any unsolved problem or question. The daily projects given to the students were specifically chosen to match their background and interests and also to allow them to search more deeply into the industrial complex. The overall college coursework assessment mark now contains a section based on the quality of the industrial course report.

A few examples of the daily projects might help to show the nature of the course:

One student was given the chemical name of a product made somewhere on the plant and his task was to use the library, labs and plant and to return at the end of the day with a sample of the product together with its analytical data.

A maths/chemistry student was instructed on the use of the ICL computer systems at the plant and asked to solve a problem connected with wages increase and cost of production of a particular product.

All the students became very interested in the BIOMASS project and to quote from a student's report, 'This project produces high protein animal feedstock from hydrocarbon starting materials, by allowing bacterial action to take place in the hydrocarbon culture. Sufficient mass is produced to be harvested and processed into cattle cake.'

In the analytical section of ICI some students were presented with an unknown chemical and they were detailed to visit the company's spectroscopists and microscopists and to return at the end of the day with the name of the compound. A similar group visited the gas chromatography and mass spectrometry sections to find answers to problems they had been set.

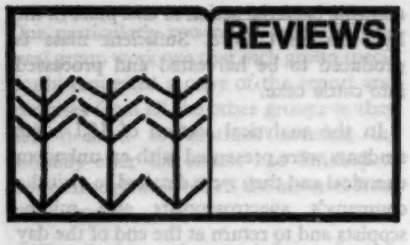
The students seemed keen on knowing why some products had been discarded in favour of others. This was particularly true in the compound fertiliser section of ICI which once used ammonium sulphate (as calcium sulphate was readily available for the production of the necessary sulphuric acid) but this had been discarded in favour of ammonium nitrate and urea. Why was this and why has the ammonia plant now changed to use methane as the prime source of hydrogen? The historical building on the site attracted some people's interest and these students were able to use the ICI plant as a very good example of industrial progression.

The success of the scheme can be assessed only by the change in attitudes; the increased awareness and enthusiasm of the students and the positive feeling that they had gone a long way to achieve the objective of the course. Follow up work has led to a number of mini-research projects, and also a few schools have benefited from the first hand industrial experience of the students by works visits organised by them while on teaching practice.

This college/industrial course will develop and change, in a similar manner to the way that industry is constantly changing because it is on the look out for newer and more efficient methods.

A student report closes with the statement 'In an industrial society this was a thoroughly beneficial course.'

A. V. Jones, Sunderland College of Education



Moral Education in School

Philip R. May

Methuen £1.75 (hardback) and £1 (paperback)

What Shall We Tell the Children?

John Wren-Lewis

Constable £2.50

One of the problems of a modern democracy is what it should do about its moral education. To impose any particular system of values upon the young—to force or wheedle them into uncritical conformity—is itself immoral since the aim should be to stimulate and encourage our pupils to personal independence of mind. It is equally true, however, that a democratic society, indeed any society, maintains itself by the veneration and transmission of those values which define its nature and relationships. The 1944 Education Act stressed the second aim to the neglect of the first. Others have done exactly the reverse. What we need is a mode of moral education that combines the two—encouraging critical thinking and eschewing rigidity, while offering experiences that bring home the importance of civilized values.

Moral Education in School skirts around the question of how to combine freedom of development with the attainment of moral insight. But it never really engages the problem. For the author, education in civilized values is synonymous with the imparting of orthodox Christian beliefs. As he sees it, the Ten Commandments, refined by the teaching of the New Testament, are all that we really need to secure the moral framework for personal and social life today. Would it were as easy as that! In fact, many of the really pressing moral problems of our time—population control, conservation, the *abolition* of poverty (as distinct from charity to the poor), premarital love (as distinct from fornication), the loss of individual dignity within the consumer society, etc.—are neither envisaged nor dealt with in the Bible. A modern moral education must aim at a level of critical awareness and responsibility which goes far beyond conformity to a set of rules. Although inadequate in its overall approach, the book nevertheless makes a useful contribution to the general discussion on moral education by its report on an inquiry into teachers' and adolescents' ideas about moral education. This inquiry involved 311 schools, giving nation-wide coverage, and an additional sample of adolescents. Of the information emerging, four points—not all deduced by the author—are of particular interest. (1) A majority of teachers feel that more time should be set aside for moral education. (2) Great confusion exists within the teaching profession about what moral education is. (3) Many teachers are nervous of accepting any responsibility for it and (4) There is a 'generation gap' between teachers and pupils about what the content of moral education should be. Clearly, we have a long struggle ahead before the spread of vague good will and concern on this issue can be brought to an effective educational focus.

It is focus which this book, unfortunately, lacks. Philip May—like many of the teachers upon whom he reports—wants to play it both ways, seeking to instil uncritical obedience at one moment and advocating an open developmental approach to moral education at another. What we have to accept as our starting point—however inconvenient we may find it—is that authoritarian positions have lost their credibility for the young.

J.H.

For more than a decade John Wren-Lewis, a scientist and lay-theologian, has made an invigorating contribution from the side of radical theology to the debate about God, a contribution marked not least by his willingness to contemplate drastic revision of received notions in religion. In this book

Mr. Wren-Lewis turns his attention to the need to provide a relevant and intellectually respectable basis for religious education. Both relevance and respectability demand, he believes, that we recognise and help children to understand a fundamental shift in man's view of the world which is currently taking place.

Taking A. N. Whitehead's aphorism that it is much more important that a scientific theory should be interesting than that it should be true, the author argues that we are increasingly coming to see that scientific and religious formulations about the world or God are not to be taken as descriptions of what is 'really' the case, but as imaginative responses to experience, useful insofar as they open up new possibilities of creative action in the world and to be discarded if they do not. Traditional religion and naturalistic humanism are alike mistaken and misleading because they purport to describe realities 'behind the scenes' of ordinary experience.

Freed by the new 'experimental attitude, to see that the World is neither Grand Design nor Great System but rather Great Opportunity, we are able to respond to the truths expressed in a variety of religious and non-religious belief systems, taking these insights which, in the author's word, 'resonate' for us and which we can use in the 'experiment of achieving more abundant life' for ourselves and others. In our society the psychedelic drugs are now among the range of experience-expanding possibilities, and Mr. Wren-Lewis has a refreshingly brisk and sympathetic discussion of their use and limitations.

The exposition of this committed pragmatism occupies the major part of the book, spilling over into the chapter which is devoted to setting out the author's suggestions for content and method in religious education. The approach Mr. Wren-Lewis commends is essentially one of open discussion, though he hopefully seeks also to include 'a certain necessary minimum of historical and theological scholarship about the world's religious traditions'. With adolescents he believes that the discussion should not remain at a cerebral level but that, using encounter-group tactics, the participants should be challenged to examine their emotional investment in their beliefs and to answer the question 'what exactly is this belief doing for you?' Allied to this there should be opportunity to participate in a range of religious activity, so that the assembly which on one day is given over to Christian Worship or a Buddhist-led meditation might on another day take the form of an experiment in sensitivity training in the style of an encounter-group.

To the necessary tasks of promoting honesty and banishing banality in religious education *What Shall We Tell the Children?* makes a bracing contribution. Despite the 'we' of the title, however, it is a highly personal position which is offered rather than a policy, a voyage round the lucid mind of Mr. Wren-Lewis rather than a common way forward for teachers as diverse in their commitments as the society they represent.

E.L.

The Teacher's Day

S. Hilsum and B. S. Cane
NFER £3.80

This report describes the first really serious attempt in this country to discover exactly how teachers spend their working time. Limited by funds and by the complexity of the task itself, the survey was eventually restricted to a group of 129 teachers in 66 Surrey junior schools and was completed in 1969. From the 200 days of minute and careful observations made by trained observers, together with detailed diaries completed over a total of 75 week-ends and 150 vacation days, by the teachers themselves, the authors have assembled a most interesting picture of the Surrey junior school teacher at work.

Like all good inquiries it gives rise to others. It whets our appetite for corresponding pictures of infant and secondary school teachers' lives, and it certainly makes us repeat some topical questions about the need for teachers' aides, the relevance of teacher-training and the management skills required by head teachers.

D.T.E.M.

The Rise of a Central Authority in English Education

A. S. Bishop

Cambridge University Press £4.20

This is a valuable work of scholarship taking its place admirably in a series of studies which seem certain to become indispensable to students of educational history. It deals with the first phase of development towards a system of central authority from Brougham's select committee appointed in the year of Waterloo to the end of the 19th century. One may hope that a subsequent volume in the series will cover the 45 years of the Board of Education's existence.

Dr. Bishop traces the three strands of authority which Balfour and Morant eventually wove together, elementary education, science and art, and the charity commission. Kay-Shuttleworth, of whom a modern biography is surely due, dominates the opening scenes. To his successors in the Education Department is attributed the frustration which Arnold and others so keenly felt in the years up to 1870. The story of the long haul thereafter which eventually yielded the relatively strong central authority at Morant's disposal is well told. Dr. Bishop neither exaggerates nor minimises the muddle and neglect. And yet he has to record more than 40 reports of Royal Commissions, Select Committees, Official Committees and special commissioners on aspects of education all issued between 1815 and 1898. Take these together with HM Inspectors' reports, minutes of the Council, annual reports and other parliamentary papers—there are millions of words to read on the need and prospects for a national system of education.

In a final chapter, packed with telling quotations, Dr. Bishop briefly sums up. The emerging pattern of education in this country, he writes, 'has been shaped . . . by bad luck and poor judgement, not simply by religious pride and prejudice, social and economic pressures and administrative convenience—the factors which are generally held to have been its main determinants.' His book amply sustains this view.

D.M.H.

Art in Schools (Education Survey 11)

HMSO 70p

We are told that the descriptions of good practice have been chosen to 'illustrate interesting approaches to art education . . .'. The impreciseness of 'interesting' certainly reflects current uncertainties, but it conceals what seems to be a very real similarity of choice, difficult to characterize; certainly including an admiration for the unusual teacher and absorbingly interested in teaching methods; yet in many ways seeming to accept things as they are. The descriptions are almost all of practical procedures and indeed there is much to praise in the creative reactions of art teachers to challenging situations. They all fit happily into the framework of what is accepted as art in schools. In this sense the survey is a somewhat subjective look at a part of current practice. What one does not gather is a sense of what goes on in other art rooms (this is not of course within the objectives of the survey), nor does one gain much sense of children (or teachers) subjected to the influences and pressures of living in the last half of the twentieth century. One implication of the survey—though I am sure that this was not intentional—is that if only art education were all as described here, all would be well. Not that the survey is not critical; it is constructively critical, particularly in the area of accommodation; but in a curious way the emphasis that is laid on the personal qualities and abilities of art teachers tends to weaken such criticisms. One feels a little that what is being implied is that a good art teacher will overcome all difficulties.

It is worth drawing out two further points: the first is the assumption that the practice of art is what art education is about—and that the excellence of children's work is therefore the ultimate criterion. True, this is a well-established idea—but needs a great deal of qualification. The second point is the emphasis on the personal qualities and abilities of the teacher 'as a major factor in the success or failure of an art department.'

D.F.

science museum

SOUTH KENSINGTON, LONDON, S.W.7.

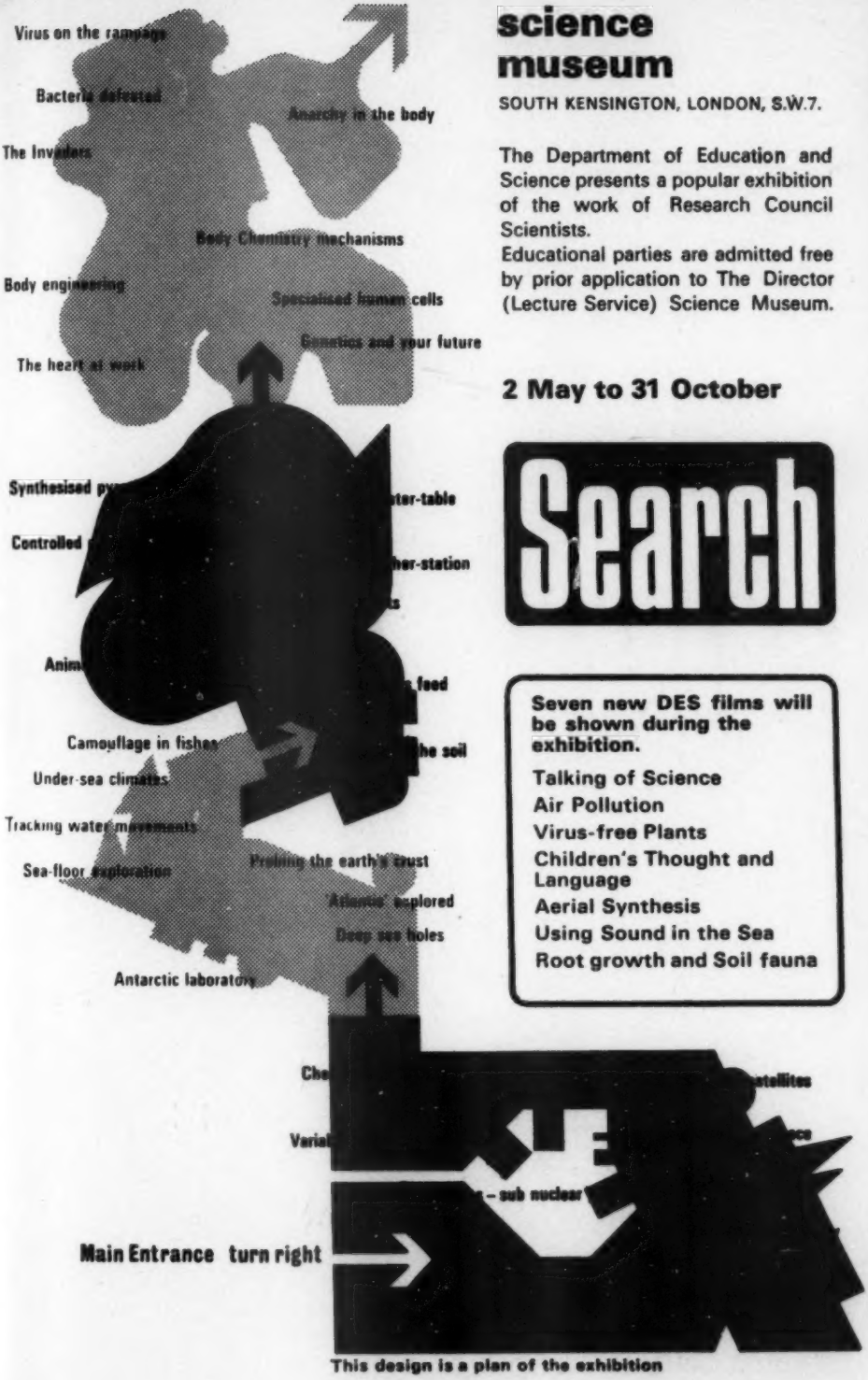
The Department of Education and Science presents a popular exhibition of the work of Research Council Scientists.
Educational parties are admitted free by prior application to The Director (Lecture Service) Science Museum.

2 May to 31 October

Search

Seven new DES films will be shown during the exhibition.

- Talking of Science
- Air Pollution
- Virus-free Plants
- Children's Thought and Language
- Aerial Synthesis
- Using Sound in the Sea
- Root growth and Soil fauna



This design is a plan of the exhibition